

# textile bulletin

Ways to meet the growing competition being offered cotton by other fibers are discussed by Robert B. Evans in this issue. Please turn to Page 39.

L.J.N.O.  
March 2, 1911

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## "Verybest" LOOM STRAPPING Manufactured by

### CHECK STRAPS Reinforced "Verybest"



Provides 12 1/2 % more wearing surface, conformed to Picker Stick angle.

"Verybest"

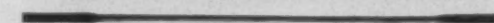
Conventional Custom cut and shaped, uniform in width, thickness, and performance.



HAIRY SPINDLE BUMPER STRAPS  
With Rubberized Fabric center ply.



FLAT STRAPS  
Round Harness Straps  
Hairy and Oak Leather or Rubberized Fabric.



Immediate Delivery — Any Style or Size!

**E. H. JACOBS NORTHERN DIVISION**  
The Bullard Clark Company  
DANIELSON, CONNECTICUT

# WARP SPINNING BOBBIN

STRAIGHT SIDE



The spindle top fits the "cushion-grip" with a gentle squeeze to make top-drive contact, which breaks sharp and easy without drag or pull in doffing.

## SONOCO

Makes Everything  
in Textile  
Paper Carriers



Constant improvement of the SONOCO (Straight Side) Warp Spinning Bobbin continues to accentuate its 5 distinct advantages.

1. Easier doffing—breaks clear at top.
2. Uniform tension—from parallel sides.
3. Larger package—permits full traverse.
4. Positive clearance on spindle acorn at base.
5. Top drive contact—cushion grip feature.

With added toughness to withstand rough handling, the SONOCO Bobbin is the only warp spinning bobbin to include all the above advantages plus long wear.

A straight side bobbin and a straight side spindle acorn mean constant uniform clearance at this point, which is essential in maintaining top suspension drive.

## SONOCO PRODUCTS COMPANY

BRANTFORD  
ONT.

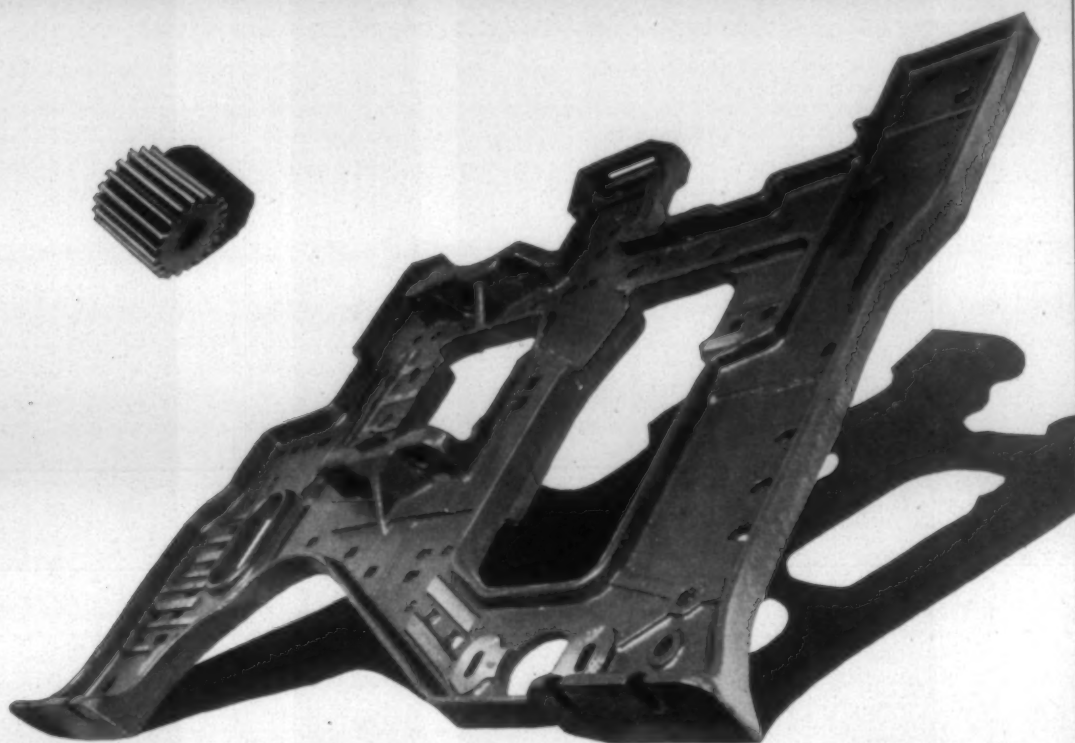
HARTSVILLE  
S. C.

MYSTIC  
CONN.

DEPENDABLE SOURCE OF SUPPLY







## PRECISION PARTS *Equal* PROVEN PERFORMANCE

THE MODERN high-speed DRAPER loom is a complex machine—a machine that demands precision parts in its manufacture. From motor pinions to loomsides, each part is machined in specially designed jigs and fixtures by skilled workmen operating the latest machine tools. Precision parts must result, there can be no variation.

- Standardized shop procedure means Precision Parts.
- When you buy DRAPER precision parts, you buy proven performance.
- The proven performance of DRAPER looms means more cloth at less cost.



### DRAPER CORPORATION

Atlanta, Ga.

Hopedale, Massachusetts

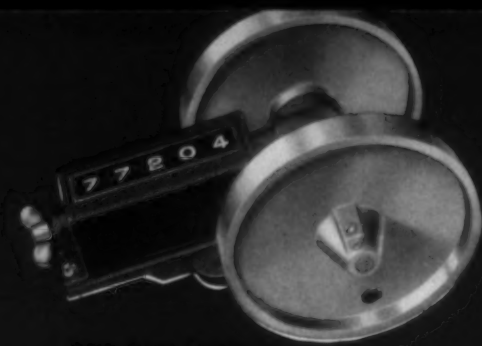
Spartanburg, S.C.

# Textile Detergent Operations

| OPERATION AND FIBER                                                 | PURPOSE OF OPERATION                                                    | DETERGENT PROPERTIES REQUIRED                                | DETERGENT RECOMMENDED                                |
|---------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------|
| <b>KIERBOILING</b><br>Cottons                                       | To remove natural waxes, motes, pectins and soil; to improve absorbency | Rapid penetration and/or soil removing and suspending action | Certified Flint<br>*Regal<br>*Energetic              |
| <b>BOIL-OFF</b><br>1. Cotton<br><br>2. Synthetics including hosiery | To remove natural waxes, motes, pectins and soil; to improve absorbency | Rapid penetration and/or soil removing and suspending action | Certified Flint<br>*Regal<br>*Energetic              |
|                                                                     | To remove spinning oils, sizing compounds and soil                      | Good detergent action; in some cases leveling properties     | Certified Flint<br>Giant<br>*Energetic<br>*Triumph   |
| <b>CONTINUOUS BLEACH</b><br>Cottons                                 | To remove natural waxes, motes, pectins and soil; to improve absorbency | Rapid penetration                                            | *Regal                                               |
| <b>DESIZING</b><br>Cottons                                          | To remove size                                                          | Rapid penetration and wetting action                         | *Regal                                               |
| <b>SCOURING</b><br>1. Raw wool<br><br>2. Wool piece goods and yarn  | To remove grease and dirt                                               | Good detergent properties. Easy solubility and rinsability   | Re-Nu<br>Texscour<br>Certified<br>*Triumph<br>*Regal |
|                                                                     | To remove spinning oils and soil                                        | Oil emulsification                                           | Texscour<br>Certified<br>*Regal                      |
| <b>DYEING</b><br>1. Cottons<br><br>2. Wool                          | To improve dye penetration and leveling action                          | Stability to acids often necessary                           | *Regal<br>*Energetic                                 |
|                                                                     | To perform leveling action                                              | Dye suspending action; stable to acid                        | *Energetic                                           |
| <b>SOAPING</b><br>1. Cottons dyed<br><br>2. Prints                  | To remove excess dye; bringing up color                                 | Maximum detergent action                                     | Flint<br>*Triumph<br>*Energetic                      |
|                                                                     | To remove gums, starches, etc.                                          | Maximum detergent action                                     | Flint<br>*Triumph<br>*Energetic                      |
| <b>FULLING</b><br>Wool                                              | To aid in fulling operation and scouring                                | Good lubricant properties                                    | Flint<br>Certified                                   |
| <b>FINISHING</b><br>1. Cottons<br><br>2. Synthetics                 | To apply a soft hand to goods                                           | Low titer; freedom from rancidity                            | Certified<br>Texcour                                 |
|                                                                     | To provide scroop                                                       | High titer; freedom from rancidity                           | Flint                                                |

\*Synthetic detergent

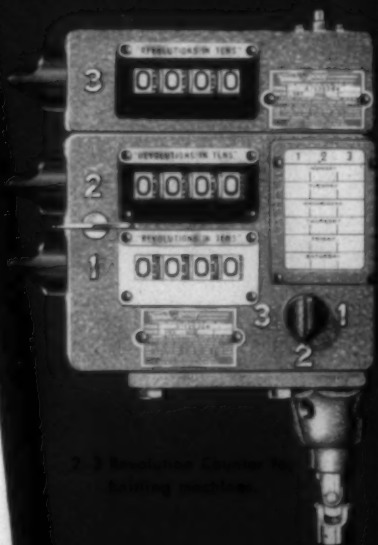
Additional copies of this chart, and full information on any product may be secured from ARMOUR AND COMPANY, Industrial Soap Division, 1355 W. 31st Street, Chicago 9, Illinois.



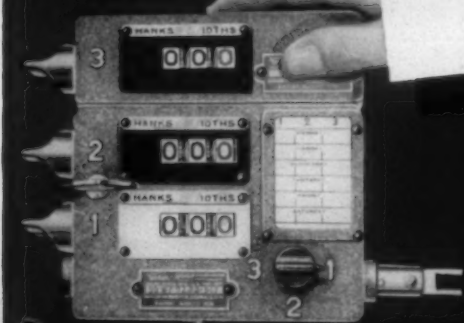
# You can COUNT on VEEDER-ROOT ...all through your mill

For looms, frames, or knitting machines... for recording picks, cuts, hanks, revolutions, linear units, or whatever *you* want to count... there are direct-reading Veeder-Root Counters for the job you need done.

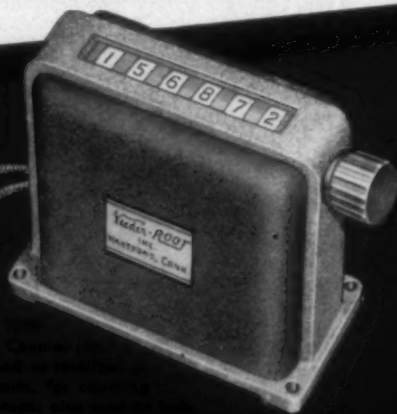
Here are some of the standard Veeder-Root Textile Counters shown in Catalog T-48. And if it takes a *special* counter to fill your bill — then's when it pays to remember that Veeder-Root has the longest engineering experience, plus the most modern plant and resources, to work your problem out most speedily and successfully. Yes, on *any* counting problem, it *pays* to count on Veeder-Root.



Check speed Counter for checking speeds of loom cranks, etc., spinning frame shafts and front rolls, etc.



A counter for counting the number of picks, cuts, hanks, etc.



Hand Type Counter for counting the number of picks, cuts, hanks, etc.



Hand Type Counter for counting the number of picks, cuts, hanks, etc.

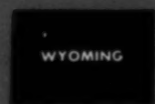
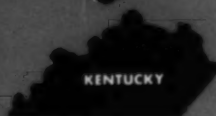
In Canada: Veeder-Root of Canada, Ltd., 955 St. James Street, Montreal 3  
In Great Britain: Veeder-Root Ltd., Kilspindie Rd., Dundee, Scotland

Booth 315  
Knitting Arts Exhibition  
Atlantic City, N. J., April 25-29

INCORPORATED  
HARTFORD 2, CONNECTICUT • GREENVILLE, SO. CAROLINA



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Bituminous  
Coal Fields  
of America*



The **P**ITTSTON  
COMPANY

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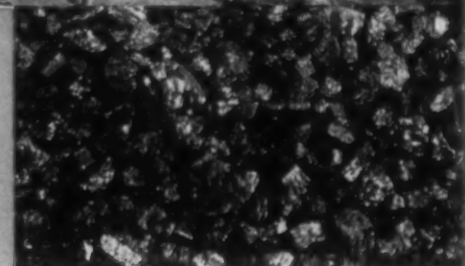
McCormick Bldg., Chicago 4, Ill.

# CLINCHFIELD COALS



NEW MEADE PLANT

*Designed by Nature-  
Perfected by Man!*  
**for all your needs**



When you buy CLINCHFIELD COAL, you buy coal mined from one of nature's choice coal fields and perfected by the most modern mechanical means known to man. Daily at CLINCHFIELD, huge tonnages of quality coal such as the world famous Moss by-product medium volatile, are mined. And their coal reserves are colossal... over a billion tons of mineable quality coal in an area of approximately 250,000 acres in southwest Virginia, comprising one of the largest untapped natural resource areas in the East.

Two new multi-million dollar plants with a capacity of 3,500,000 tons annually, have been

completed and equipped with the latest in mining and mechanical cleaning devices which give CLINCHFIELD COAL an added plus in the bituminous field. This brings CLINCHFIELD'S southwest Virginia tonnage to well above 5,000,000 tons annually.

No wonder when you think of the good bituminous coal, you think of CLINCHFIELD... the coal designed by nature and perfected by man to satisfy *all* your needs. Complete engineering service is available without charge to help you select the proper CLINCHFIELD COAL for your plant.

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**GLOBE COAL CO., McCormick Building, Chicago, Illinois**  
**PATTISON & BOWNS, INC., 17 Battery Place, New York, N. Y.**  
**CLINCHFIELD FUEL CO., Spartanburg, South Carolina**

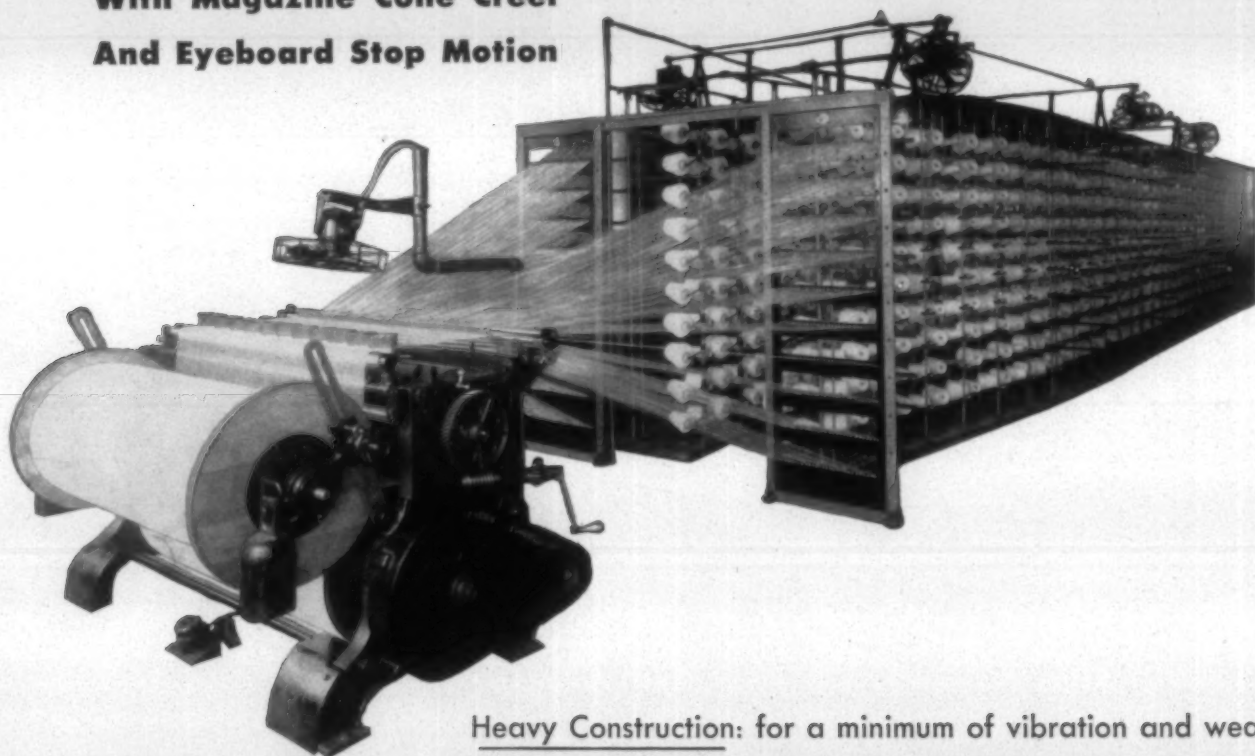
*Subsidiaries of THE PITTSTON COMPANY*

Exclusive Canadian and Newfoundland Representative—F. W. WEAVER COAL CO., Ltd., Montreal and Toronto, Canada



# The **Cocker** High Speed Section Beam Warper

**With Magazine Cone Creel  
And Eyeboard Stop Motion**



Heavy Construction: for a minimum of vibration and wear. Accurate Controls: most of which function automatically to produce highest quality warps. High Speed: for quantity production. Superb Engineering: This Section Beam Warper contains every feature of proven worth. All parts are engineered for long, trouble-free service and are easily accessible for quick repair or replacement, keeping downtime to a minimum.

For further information, quotations, etc.,  
write or wire

# **Cocker**

**Machine and Foundry Co., Gastonia, N. C.**

**WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE  
WARP PREPARATORY EQUIPMENT**

**Linit Fashion Show  
On Starched Cottons  
Set For February 2**

The Lark Division of Con-Prod Co. will stage a big fashion show, featuring starved editions, in the Grand Ballroom of the Waldorf-Astoria on Feb. 2. It was announced yesterday. Fifteen top designers will each create three summer costumes keyed to the theme, "Fashion Accents Crap." This is the first time a starch firm has ever staged such a show.

Plane air, being made to accommodate more than 1,000 guests, including fashion editors, buyers, ready to wear and grocery officials, laundry executives, de-school faculty and national personalities, it was stated.

W. H. Gamble, president of retail Sales Co., pointed out the object of the promotion is to increase the use of starch.

## Corn Products Plans Starch Sales Drive

of the Corn Products  
 the Biltmore Hotel here  
 announced plans for a sales  
 design for its "first starch di-  
 1929. Features of the prom-  
 er will be a fashion show, first  
 ever staged, at the Wald-  
 the nation's foremost fash-  
 1929. The event consists three  
 summer costumes in starch  
 each for the style show  
 plan for the promotion was  
 M. Gamble, president  
 Products Sales Co., ad-  
 vices, vice president of  
 Lucas Refining Co.,  
 effects of the Fehr  
 on the laundry  
 M. G. Rollins  
 ana of the C. L.  
 titling agency, the  
 also spoke the

## Textile Firms to Aid In "Crisp Look" Show

Ameritex, Avondale, AZ

**Crisp Look Bows Today; RTW Scout Inspires a Song**

The "Catalpa" became a  
today (Wednesday) as hun  
reds of textile and fashion fir  
executives readied the  
a fashion

### Crisp Look

(Continued from page 1)  
 Mining Co., makers of Limit Sta  
 will foot the bill. They pick  
 the Waldorf tab tonight too.  
 Meanwhile a large scale fa  
 ion offensive is being plan

*fashion accents*  
*Crisp!*

1989 SUMMER PRE-VIEW  
UNIT STUDY

the Corn  
all really be  
when song-  
iting intro-  
Look" song  
t broadcast  
8, it is re-

# Smash-Hit All-Time

sponsored by the Corn Products Refining Company producer of Linit, in the grand ballroom of the Waldorf Astoria, Wednesday, Feb. 2, at 5 o'clock. New ideas in starchable cotton will be previewed by 18 foremost American designers. Maggi McNellis of radio fame will be the

26—The Berkshire Evening Eagle, Friday, Dec. 17, 1948.

## It'll Be 'Crisp Look' Next

**By LO TURNER** *Continued?* The d-  
NEW YORK (UPI)—It's going to be  
be very easy for women  
stylish and  
experts mild  
do is turn A-  
years, wash i-  
a lab of st-  
Then, he hel-  
That was th-  
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model and ma-  
has made.  
ful. Suzi B-  
her's the  
aligner, wh-  
the 1949 fash-  
lle in a sho-  
shock the old-  
ing around th-  
off.

**Hemline Will**  
Want to know  
hemline is going  
Max Suzi B-  
"It's coming up-  
she said. "The mi-  
Want to know w-  
be called?"  
"The crisp look-"  
Do you want to

*Never before*  
television and newsreel  
ance of "Fashion Acce-  
Corn Products Refinin-  
starches for the textile  
Astoria Hotel's grand  
Featuring brand  
starchable cottons by  
formally introduced th-  
accepted as THE fas-

*...the ... ..*

*Never before* such a flood of press, radio, television and newsreel raves as for the performance of "Fashion Accents Crisp," produced by Corn Products Refining Company, makers of starches for the textile industry, at the Waldorf-Astoria Hotel's grand ballroom, February 2. Featuring brand new summer fashions in starchable cottons by 17 leading dress designers, it formally introduced the "CRISP LOOK"—already accepted as THE fashion look for 1949.

## The 'Crisp Look' Dance



Doreen Morgan of Jackson Heights and Fred Moram of Astoria demonstrate the "crisp look" dance, named for the crisp look style that will be unveiled Feb. 2 at a Waldorf-Astoria fashion show. Arthur Murray, the maestro who created the dance, predicts that it will sweep the country.

## "Linit" Style Show Tie-Ups Announced

At a press conference, yesterday the C&S Products Sales Co., maker of "Limit," announced plans for a promotion show featuring "The Wildcat Look" Feb. 2 at the Waldorf Astoria as previously reported by ENR.

In WOMEN'S WEAR DAILY, Feb. 2 in talks that will mark the opening of a merchandising program stressing the freshness of washable, stain-resistant cottons were emphasized upon and tie-in promotions with textile firms and ready-to-wear manufacturers in advertising, window store displays, and department stores were summarized.

## Just Between Us

**WILL IT BE THE 'CRISP LOOK' FOR SUMMER RATHER THAN THE OLD DRAPE?**

P. S. Department: Didja know that the trend for this summer's styles is towards starchable cottons? ... so fashionable authorities are saying ... it's to be "The Crisp Look" ... There are only about nine more days to get your entry in to the essay contest being sponsored by the New York City Federation of Women's Clubs ... title must be Women's Contribution in the 20th Century ... any member of a federated club is eligible and the awards include magazine subscriptions and books.



The crisp look of summer costumes, due to arrive in stores in April, was glorified at a show yesterday in the Waldorf's ballroom. At left: Blue and black spider web costume, used by designer Celi Chapman for an after five o'clock dress. At right: Carolyn Schauer's summer evening dress of white pique has wide lace inserts. Not too grand for soup and starch.

**"Limit" Style Show**



YORK WORLD-TELEGRAM, WEDNESDAY, DECEMBER

**Crisp Look**  
**Makes Return**  
*by Anna Jackson*  
 One of the nicer things  
 about New York is its kind

**Linif's 1949 Drive**  
**to Be Kicked Off**  
**with Fashion Show**  
 New York—Feature of Corn  
 Products Refining Co.'s 1949 pro-  
 motion of Linif starch will be a

Accent is on Crispness  
 At Starched Fashion Show



# Show Launches Top Promotion of Fashions in Cottons!

**COTTON WITH A CRISP LOOK**



THE NEW YORK TIMES

and it's just the beginning

The "CRISP LOOK" of starchable cottons continues—and will continue to make headline news in the press, on the air, via television and newsreels, in fashion editorial copy... will be aggressively promoted by textile houses, dress manufacturers, magazines... in department store advertising the country over.

... and in the year 'round, full-color LINIT campaign in 16 national magazines with combined circulations of more than 34 million!

CRISP lounging costume, by Nina West, consists of a be-ruffled, wide-cuffed pelmet and ruffled cotton pantsuit. From the Linif show.

Summer's new look, judging from the gain showing of warm-weather fashions at the Waldorf yesterday, will be crisp as a little girl's first party pinafore. Seventeen top designers were represented in the production "Fashion Accents Crisp" sponsored by Linif Starch.

Sparkling-starched cottons were starred in clothes for travel, beach and sports wear, lounging cocktails and evening.

Pique beachcoats, denim pedal pushers, sarong-draped cabana outfits were all shown in starched versions. So were dressy cotton prints trimmed with net and candy, sun-back dresses with jockey ball gowns of marquisette, organdy and printed pique.

Designers represented included Miss L. Brogan, Celi Chapman, Jane Derby, Nelly Don, R. L. P.

Belize, black and white tones in a two-piece with a brief jacket covering a strapless bodice showing yesterday at the Waldorf-Astoria Hotel.

**You're Due to And Crackle Th**

By GERTRUDE McALLISTER  
 Woman's Editor

Let's see now. What was it Bea Lillie in the March of Dimes fashion show—where her comment on the "crisp look" of something like this: "You may not have it, but it's stiff as a board!" Haw! But that's about the size of it. Our clothes remaining pretty much this season as they were last year—though more moderate in length and width skirt—the fashionists must be something new to talk about. And it is the "crisp look."

Taffeta, though probably the lar of all fabrics of the designers. They're not.

BROOKLYN

one coming. It has sound and most women like that, we have observed. Whether it is draped or whirling freely, it does have a crisp

ments stay fresh-looking longer. At least that has been our experience—with two little girls in the family. Why shouldn't mother do likewise?

the New Look drooped. Limp lo and on some, the blimp look—would describe it.

The Crisp Look, though—that's better. It promises to be worth a second look perhaps even a whistle.

One of the top designers, Maggi McNeill, whose program "Luncheon with Maggi McNeill and Herb Sheldon at the Latin Quarter" is heard Monday through Saturday over station WJZ, has been retained as commentator for a big time "Crisp Look" show at the Waldorf Astoria.



**Corn Products Sales Co.**  
 17 Battery Place, New York, N. Y.  
**STARCHES FOR THE TEXTILE INDUSTRY**

# Sweating

is "evaporative cooling"  
...the hard way!

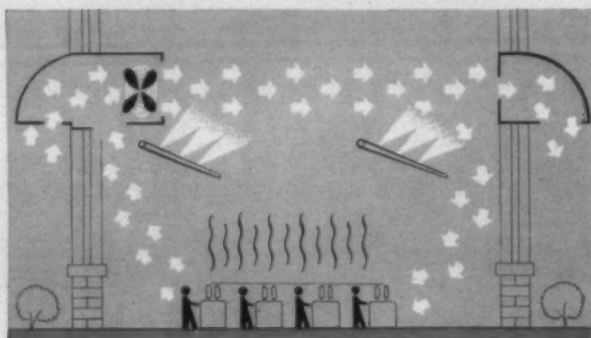


AMCO EVAPORATIVE COOLING IS THE EASY, INEXPENSIVE WAY to get rid of excessive heat. Because this way doesn't take it out of the worker in sweat and dragging fatigue. It gives precise control of both humidity and temperature which makes for a better product as well as a contented worker.

You already have a part of the system... humidification. The rest can be easily added, room by room, as you need it. No cumbersome air ducts. Just an air inlet and circulating fan to draw in the correct amount of fresh air and an outlet for automatic exhaustion of excess heat and spent air through controlled vents. Adjustable for frictional heat load of each area. Maintenance kept at a minimum.

Just as simple and easy as it sounds... and fully automatic. Ask an AMCO engineer to show you how inexpensively you can make your mill first choice of the most efficient workers, how you can boost both production and quality by the addition of an AMCO Evaporative Cooling System to your present humidification.

AMCO Evaporative Cooling Systems work this way... A controlled amount of fresh air is drawn into the mill and combined with some re-circulated air. Spray from atomizers introduces extra moisture, raising relative humidity to desired point. Evaporation of moisture absorbs frictional heat, thus reducing excessive room temperature. Spent air is exhausted automatically through controlled vents.



give you all these advantages... Increase worker comfort  
 ✦ ✦ ✦ Reduce excessive temperature and hold relative humidity at point best suited to fibre and process ✦ ✦ ✦  
 Permit faster machine speeds in high friction (heat) areas ✦ ✦ ✦  
 Assure even yarn counts and increase breaking strength ✦ ✦ ✦  
 Gradually increase regain for good roving and consequent better spinning ✦ ✦ ✦  
 Drafting of fibres smoother and more compact ✦ ✦ ✦  
 Waste and fly greatly reduced ✦ ✦ ✦  
 AMCO self-cleaning atomizers assure constant, full capacity delivery... no drip... no feathering down... minimum maintenance... long life.

## AMCO

HUMIDIFICATION AND COOLING

AMERICAN MOISTENING CO., AFFILIATED WITH GRINNELL COMPANY, INC., PROVIDENCE, R. I. • BOSTON • ATLANTA • CHARLOTTE



When new textiles or new finishes require  
new dyestuffs or application techniques

**ALWAYS SPECIFY**

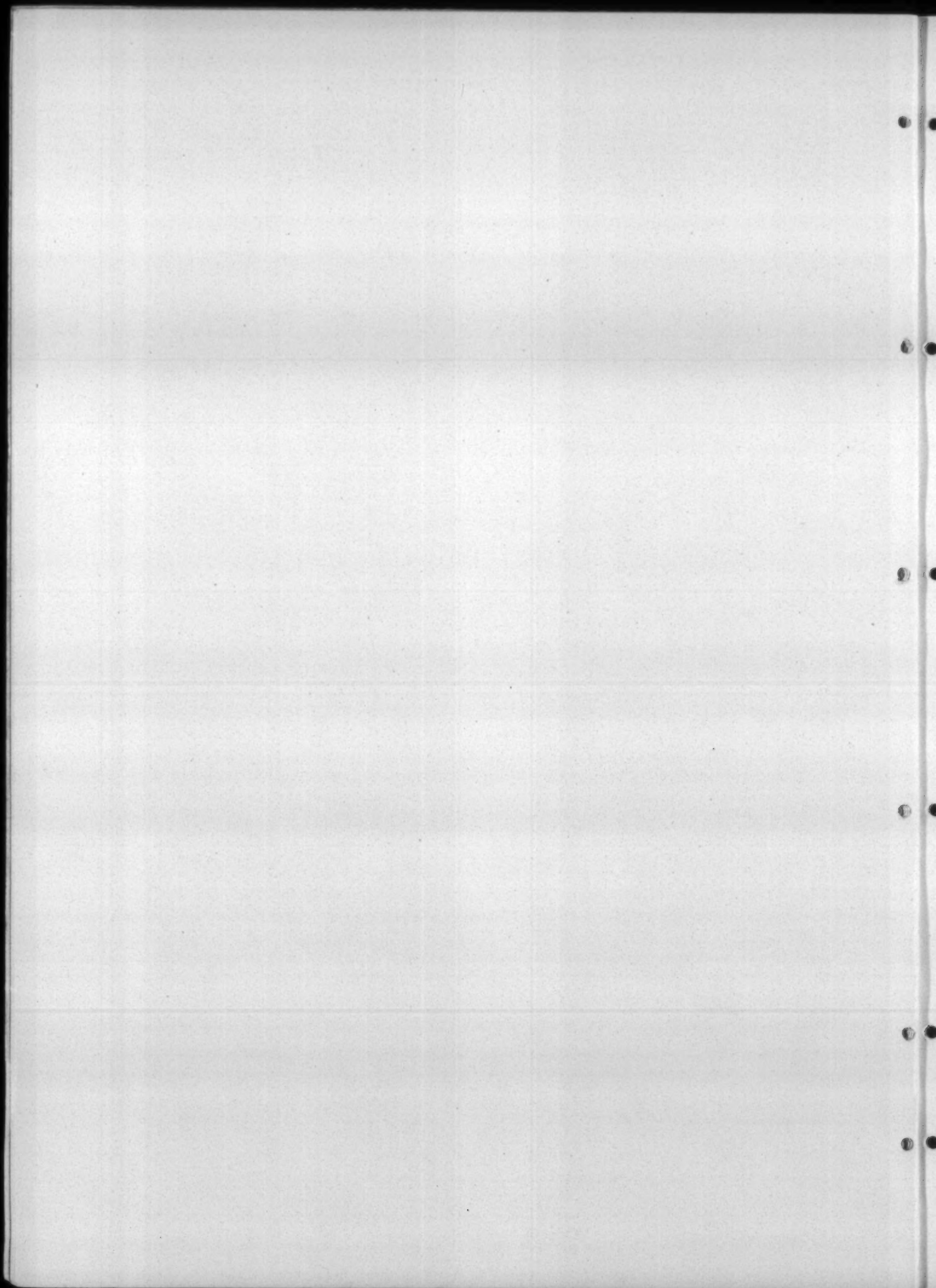
*National Aniline Dyes*



NATIONAL ANILINE DIVISION • ALLIED CHEMICAL & DYE CORPORATION  
40 RECTOR STREET, NEW YORK 6, N.Y.

BOSTON • PROVIDENCE • PHILADELPHIA • CHICAGO • SAN FRANCISCO • PORTLAND, ORE.  
GREENSBORO • CHARLOTTE • ATLANTA • NEW ORLEANS • CHATTANOOGA • TORONTO

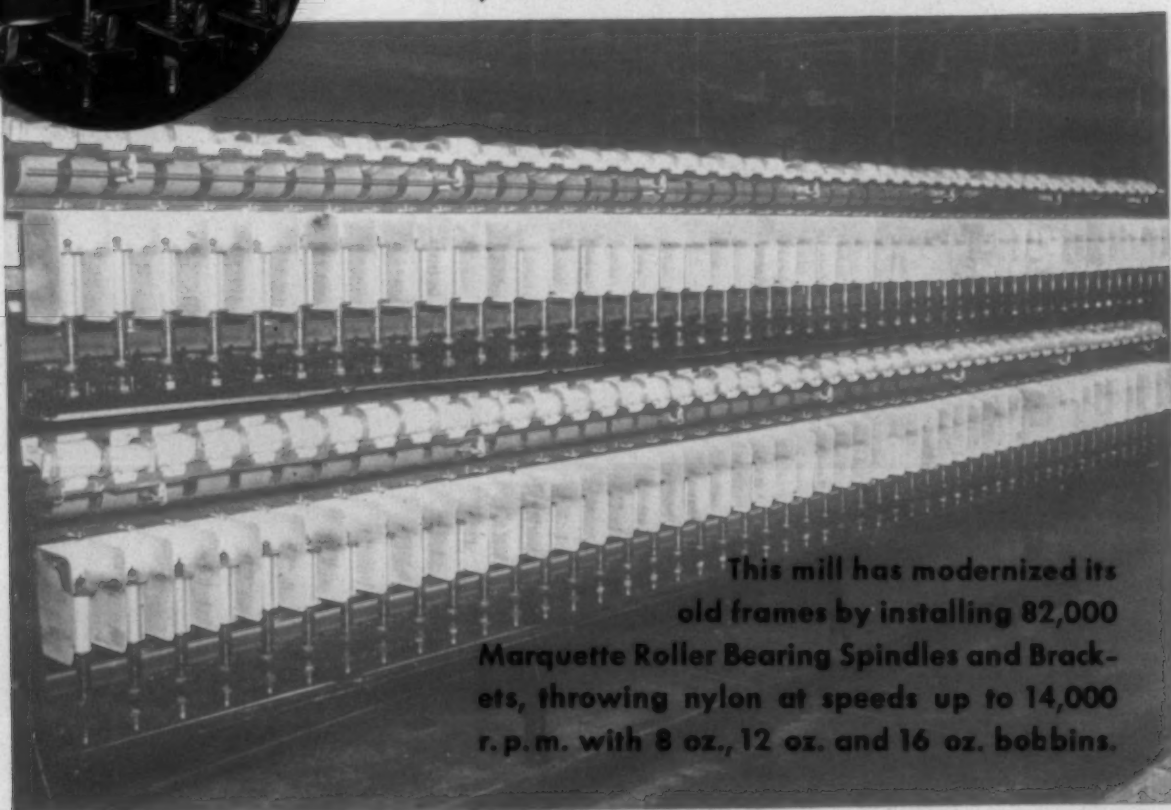
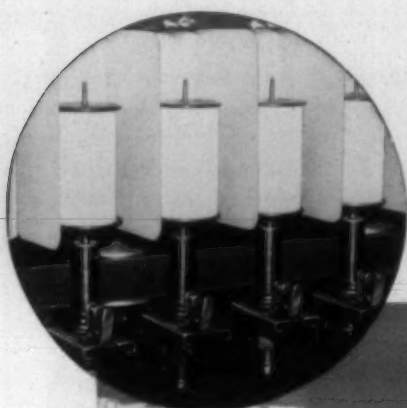




# Marquette ROLLER BEARING SPINDLES

*with* **FULL-FLOATING  
FOOTSTEP BEARING**

*For Cotton, Rayon,  
Nylon, Wool, Worsted*



This mill has modernized its old frames by installing 82,000 Marquette Roller Bearing Spindles and Brackets, throwing nylon at speeds up to 14,000 r. p. m. with 8 oz., 12 oz. and 16 oz. bobbins.

By modernizing your old frames with Marquette Roller Bearing Spindles, you too can increase production by operating at higher speeds. Marquette Roller Bearing Spindles can be obtained by all frame builders. Ask our nearest sales office for illustrated catalog, or write direct.

*The* **Marquette** METAL PRODUCTS CO.

PROTECTED BY U. S. AND FOREIGN PATENTS, AND PATENTS PENDING

CLEVELAND 10, OHIO

SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

*Also Manufacturers of:* HYDRAULIC GOVERNORS • FUEL OIL PUMPS  
WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSES  
FUEL OIL INJECTORS • PRECISION PARTS AND ASSEMBLIES

BYRD MILLER, WOODSIDE BLDG., GREENVILLE, S. C. • C. H. WHITE, 1229 PAMLICO DRIVE, GREENSBORO, N. C.  
WILLIAM P. RUSSELL, BOX 778, ATLANTA, GA. • JOHN J. HALLISSEY, 58 LIVINGSTON AVE., LOWELL, MASS.  
IAN M. HALDANE & COMPANY, P. O. BOX 54, LONDON, ONT.

**The  
Case  
for**

# Calgon

**in your plant**

**Some Calgon Applications  
in the Textile Industry!**

Water softening  
Control of iron in dyeing and bleaching processes  
Cost reduction in peroxide bleaching  
Prevention of rancid odors in wool  
Elimination of lime soap film or scum  
Assisting in leveling and penetration of dyes  
Reducing crocking of dyed fabrics  
Dispersion of pigments  
Stabilizing emulsions

VIRTUALLY every textile processing plant in the country benefits today from the introduction of Calgon in 1933.

Even if you do not use Calgon in your plant, you benefit from the pioneer work of Calgon research chemists. These chemists made fundamental studies of the water problems of textile plants. They developed the complex phosphate, Calgon, as the answer to many of these problems, and they worked out suitable methods of using Calgon in various processes. Their work is so much a part of the industry that their procedures are followed even when substitute products are employed.

If you do use Calgon, you have the assurance that you are using the best product available. No

other complex phosphate matches Calgon's combination of useful properties, effectiveness and freedom from impurities. Calgon specifications as to purity are exceptionally high, for Calgon chemists know how these possible impurities may react with your dyes and with other chemicals used in textile processing.

Furthermore—Calgon, Inc. carries on a continuing program of fundamental and applied research. Calgon chemists are constantly developing new uses and improving the technique of existing applications. Your plant can profit by their work, and by Calgon quality—but the only way to be sure of these benefits is to *specify Calgon, and make sure that you get it.*

\*T. M. Reg. U. S. Pat. Off.

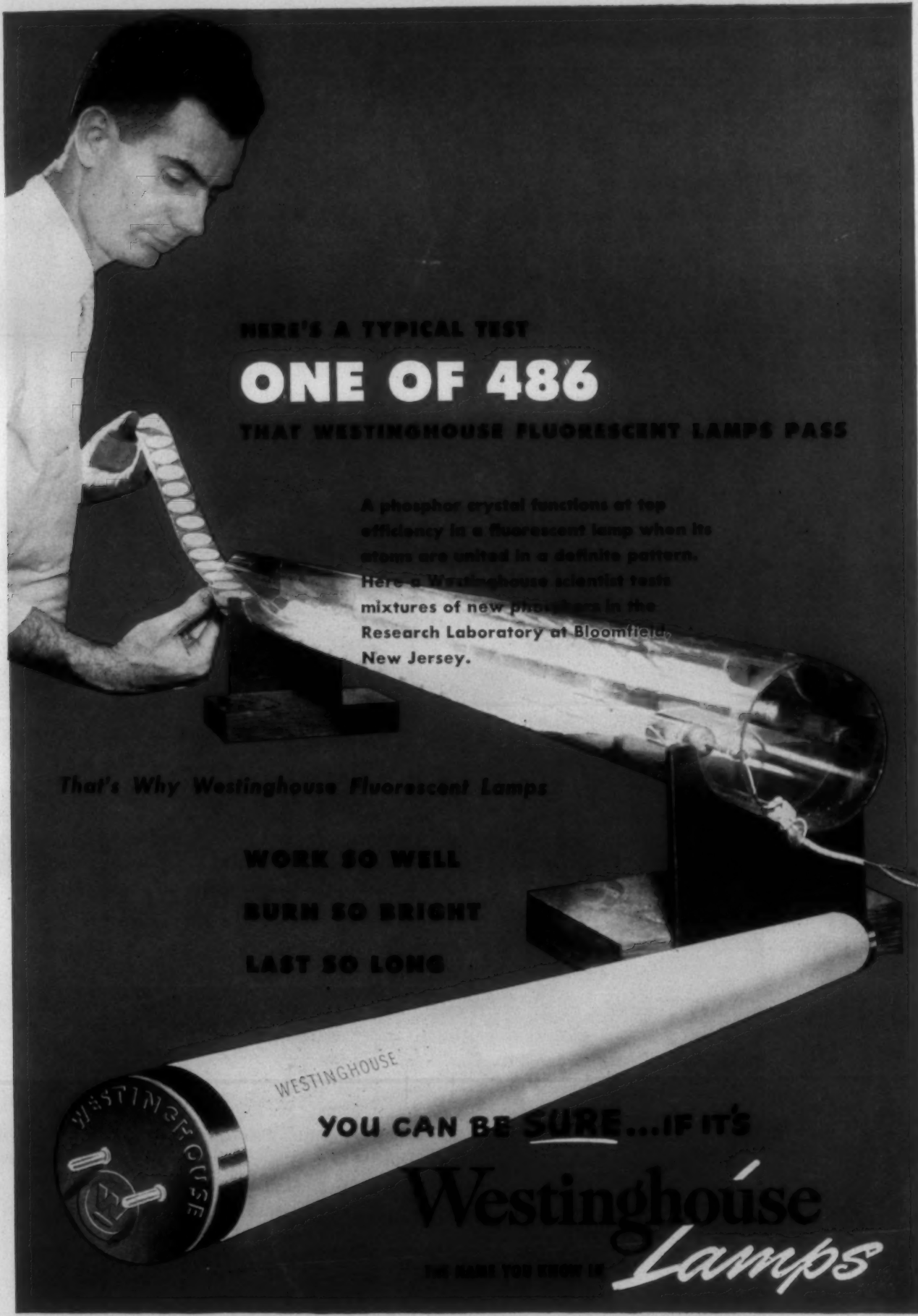
HAGAN  
HALL  
BUROMIN  
CALGON

**calgon, inc.**

A SUBSIDIARY OF  
HAGAN CORPORATION

HAGAN BUILDING  
PITTSBURGH 30, PA.





HERE'S A TYPICAL TEST

**ONE OF 486**

THAT WESTINGHOUSE FLUORESCENT LAMPS PASS

A phosphor crystal functions at top efficiency in a fluorescent lamp when its atoms are united in a definite pattern.

Here a Westinghouse scientist tests mixtures of new phosphors in the Research Laboratory at Bloomfield, New Jersey.

*That's Why Westinghouse Fluorescent Lamps*

**WORK SO WELL  
BURN SO BRIGHT  
LAST SO LONG**

**YOU CAN BE SURE...IF IT'S**

**Westinghouse**  
*Lamps*

THE NAME YOU KNOW IS

# *Perfect Twist is Required*

## SO IT'S **H&B** BEAM TWISTERS



Partial view of H&B Beam Twister installation at Aldora Mill, subsidiary of The General Tire and Rubber Company, Barnesville, Ga. There are 40 twisters in all, 5½" gauge, 4" dia. rings, 8" traverse, 160 spindles per frame.

**T**HE Aldora Mill is running rayon yarn for tire cord, and perfect twist is an absolute necessity. Therefore, it is significant that H&B Beam Twisters were selected to do the job. The supply package of these machines is a beam instead of the customary cone or tube. They also have case hardened double line bottom rolls and single line top rolls. Beam stands are equipped with ball bearings

and a brake assembly which assure uniform and even tension let off.

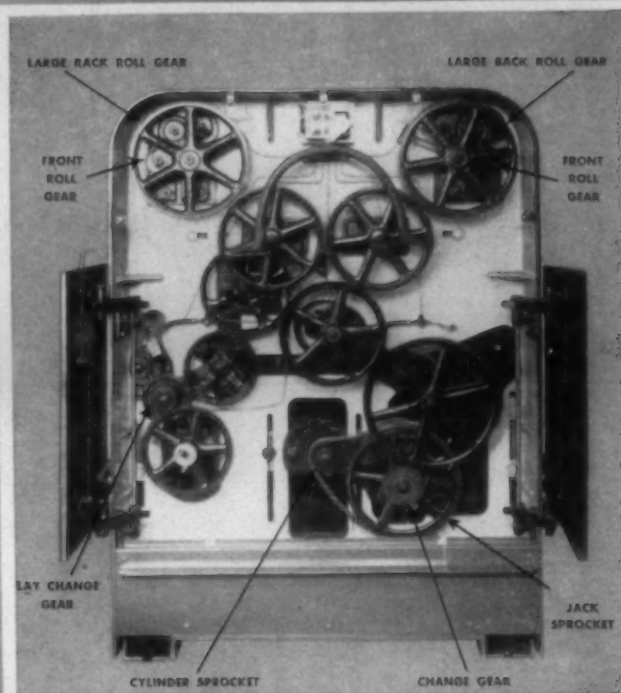
The superstructures of H&B Beam Twisters are built to accommodate one or more beams as necessary. Thus, if a mill is running two beams equally divided between the head end and the foot end of the frame, it can easily shift to single beam operation by moving one set of beam stands to the center position.

# Why Quality Yarn Mills like H & B Beam Twisters

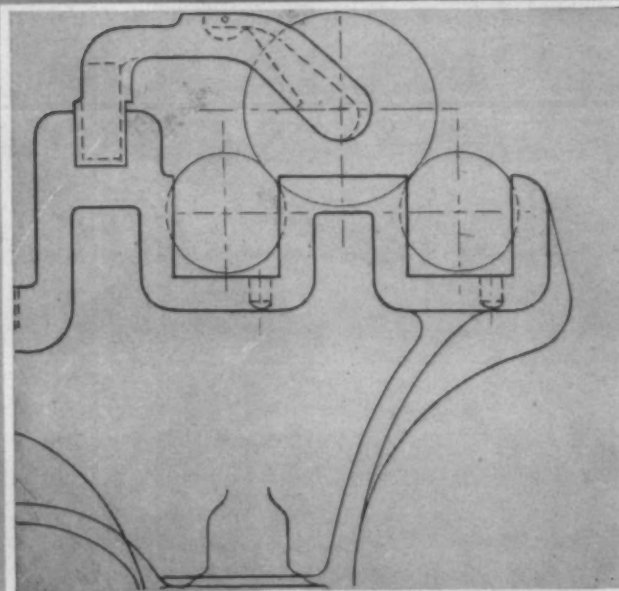
- 1** May be equipped to twist wet or dry.
- 2** Anti-friction tape tension pulley helps to maintain constant spindle speed.
- 3** Ball bearing thrust washer in builder drive prevents dwelling at top and bottom of stroke and builds a better supply for high speed winding.
- 4** Silent chain drive from cylinder to jack shaft.
- 5** Replaceable bottom roll bearings to reduce maintenance cost.
- 6** Anti-friction bearings on cylinders to save power and maintenance.
- 7** Bijur lubrication system.

Tell us your twisting requirements,  
and let us recommend an installation.

Head end of machine, showing Bijur lubrication system and silent chain drive from cylinder to jack shaft.



Cross section of roll stand, showing double line bottom rolls and single line top roll.



## **H & B** AMERICAN MACHINE CO.

*Builders of Modern Textile Machinery*

FACTORY, EXECUTIVE OFFICES AND EXPORT DIVISION • PAWTUCKET, R. I., U. S. A.  
BRANCH OFFICES: — ATLANTA, GA., 815 Citizens and Southern National Bank Building; CHARLOTTE, N. C., 1201 Johnston Building



# ***CUT COSTS • INCREASE EFFICIENCY STEP UP PRODUCTION***

**With Sheet Metal Parts of PROVEN QUALITY**

**Made and Delivered with DEPENDABLE SERVICE**

Production profits from beginning to end are yours—if your preparatory machinery is geared for efficient, economical volume production. One of the South's oldest and most experienced sheet metal plants is prepared to help you do just that. Through the years this organization has earned a reputation for top quality products, painstaking workmanship and reliable service. You will find that this kind of special knowledge and experience applied to your maintenance problems will make an important contribution to continuous, profitable production.



Simply write,  
wire or phone

**GASTONIA TEXTILE SHEET METAL WORKS, INC.**  
GASTONIA, NORTH CAROLINA

A SHEET METAL WORKS SERVING TEXTILE MILLS

# SAVES UP TO 60%

## by using Bemis TITE-FIT TUBING

*This recent letter from a Tite-Fit Tubing customer shows what big savings are realized when this waste-eliminating method is used.*

This versatile tubing fits almost any shape and a wide variety of package sizes. One roll may cover many different diameters and lengths without waste.



### BEMIS BRO. BAG CO.

Brooklyn 32  
New York



**Thermoid** AUTOMOTIVE • INDUSTRIAL • OIL FIELD • TEXTILE PRODUCTS  
*Company*  
TRENTON • NEW JERSEY • USA

Bemis Brothers Bag Company  
Second Avenue and 51st Street  
Brooklyn 32, New York

Gentlemen:

We have used Tite-Fit Tubing since its inception over 10 years ago. Accurate time study figures show our savings in labor costs on regular packaging operations to be as high as 33% to 60%.

In addition, Tite-Fit Tubing has also provided the superior covering that is required for our export packaging. We are particularly pleased by the favorable comment we receive from our customers on the neat, secure bales in which our merchandise is shipped.

Very truly yours,

*Ward A. Hannet*

Traffic Manager,  
Thermoid Company

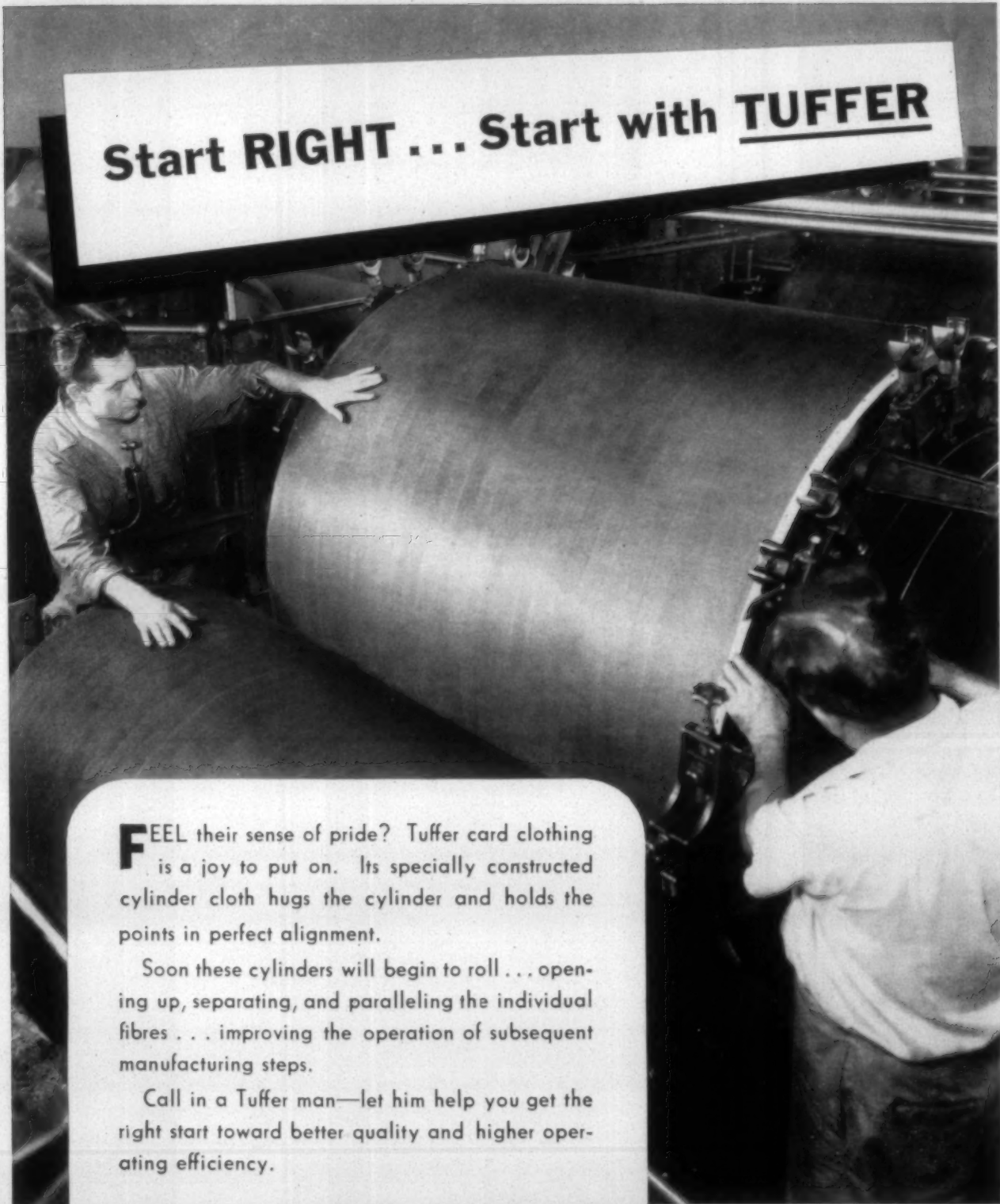
Perhaps you will find equally large savings with Tite-Fit Tubing. It's worth investigating. Get the facts. Mail the coupon now.

### MAIL COUPON NOW

BEMIS BRO. BAG CO., 5114 Second Ave., Brooklyn, N. Y.

- ☐ Send descriptive folder on TITE-FIT TUBING  
☐ Send sample. Our packages are approximately \_\_\_\_\_ inches in circumference. (Please specify).

Name \_\_\_\_\_  
Firm \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



Start **RIGHT** ... Start with **TUFFER**

**F**EEL their sense of pride? Tuffer card clothing is a joy to put on. Its specially constructed cylinder cloth hugs the cylinder and holds the points in perfect alignment.

Soon these cylinders will begin to roll . . . opening up, separating, and paralleling the individual fibres . . . improving the operation of subsequent manufacturing steps.

Call in a Tuffer man—let him help you get the right start toward better quality and higher operating efficiency.

**HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS**

Southern Plants: Atlanta, Ga. and Gastonia, N. C.

Branches: Philadelphia, Pa. and Blanco, Texas

Direct Representation in Canada

A-6

**TUFFER**  
CARD CLOTHING

**IMPROVES PRODUCTION ALL ALONG THE LINE**



# Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N. Y.

MARCH, 1949

## New Cake Cover Now Printed for quick, positive identification

An indelibly printed disposable cake cover—hailed as the first “infallible” method of identifying rayon yarn—has been worked out by Avisco research men. All the information needed in processing rayon—denier, direction of twist, degree of luster and lacing notice, is discernable at a glance. Thus, the new cover will largely eliminate packing errors and the mix-ups which have complicated the problem of storage. In addition, it immediately signals “right side up”—an important factor in efficient winding.

The cover is printed with a special ink that is impervious to sulphuric acid, strong alkalis, bleach, gelatin and oils—as well as soaping, tinting and dyeing.

Since its introduction last summer, the disposable paper cover—an exclusive with American Viscose Corporation—has won widespread acceptance in the textile industry.



Users have commented favorably on the elimination of the 5-cent deposit required by the conventional knitted cover and the associated handling and bookkeeping required. Now, the addition of a printed label eliminates identification hazards.

The first Avisco rayon cakes with the new printed covers are expected to be shipped this month from the Roanoke, Virginia plant of American Viscose Corporation.

## Avisco sponsors development of better use tests for rayon fabrics at Penn State College

To develop laboratory tests which will accurately show what will happen to rayon fabrics when used, Avisco for six years has been supporting a research program at the Ellen H. Richards Institute of Pennsylvania State College. The work includes the development of accelerated aging tests for fabrics exposed to light, heat, humidity, atmospheric gases, perspiration, abrasion, laundering and dry and wet cleaning. Tests involving a combination of these agencies are also being devised. In addition, wearing tests are being run at the same time as a check on the accuracy of the trial laboratory tests.

Research workers at the Ellen H. Richards Institute have shown that many of the textile tests now in use—while they do screen the extremely bad fabrics from all others—have limited value in predicting what will happen in use. The purpose of the Institute's work is to develop laboratory tests sufficiently rigorous to simulate what happens to fabrics in the consumers' hands. The information resulting from these tests will aid in improving the construction of rayon fabrics and the finishes and dyes selected for them. The results of the Institute's work to date are available on request in pamphlet form.

## MAKE USE OF *Avisco*<sup>®</sup> 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

- 1 FIBER RESEARCH
- 2 FABRIC DESIGN
- 3 FABRIC PRODUCTION
- 4 FABRIC FINISHING

## AMERICAN VISCOSSE CORPORATION

America's largest producer of rayon  
Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

## RAYON 20 YEARS AGO



NEW YORK, March, 1929—Rayon is entering another field. It is now possible to purchase rayon fabrics for upholstering automobiles.

MANCHESTER, ENGLAND, March, 1929—Exhibitors at the British Industries Fair are showing printed rayon hose—the latest English fashion.



NEW YORK, March 1929—Original designs intended for use on rayon fabrics are now being registered by the Design Registration Bureau of the Silk Association. Formerly only designs intended for costume silks were accepted.



**lower  
de-sizing  
costs**

**FOR COTTONS, RAYONS, MIXED GOODS**

**RAPIDASE saves you money  
because**

**1—It de-sizes efficiently at high speeds.**

This fast-acting enzyme is particularly adaptable for high-speed continuous de-sizing ranges, shorter time in the box or fewer ends on the jig.

**2—It is effective in low concentrations.**

This concentrated product can be used advantageously in concentrations as low as one tenth of 1%.

**3—High temperatures can be used to increase its activity.**

The starch-solubilizing action of Rapidase is doubled with each 18° rise in temperature between 120° and 200° F, permitting advantage to be taken of the increased penetration and easier removal of the decomposition products at the higher temperatures.

**RAPIDASE**

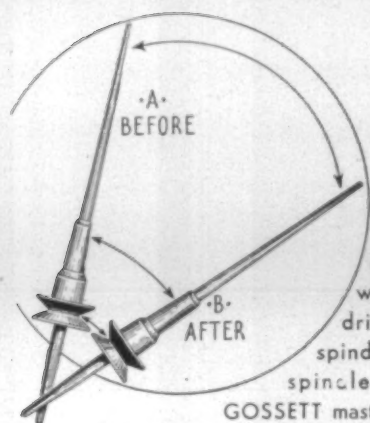
*for de-sizing®*

TECHNICIANS AVAILABLE • WRITE FOR BOOKLET

**WALLERSTEIN COMPANY, INC.**

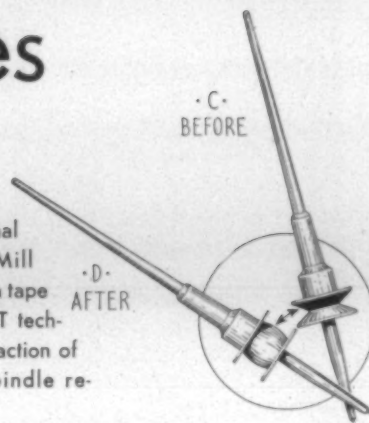
**180 MADISON AVENUE, NEW YORK 16, N. Y.**

# Look At What We Do . . . to Spindles



•A• This spindle is badly worn. Note the wornout top, acorn and drive. . . Now look at spindle (B) . . . the same spindle reconditioned by GOSSETT master technicians.

•B• The worn top has been cut off and a new piece of spindle steel butt-welded onto spindle blade and the top ground to size specified. We also build up the worn top with hard chrome plate and grind the top to size specified. After retopping blade, if necessary we put on a new whorl (made by GOSSETT).



•C• This is a conventional band driven spindle. Mill specifications called for a tape driven spindle. GOSSETT technicians converted at a fraction of the cost of complete spindle replacement.

•D• We removed the band driven whorl and put on a new GOSSETT tape driven whorl (we make thousands of new whorls every week). Then we arranged the band driven spindle base so that it can be used with tape driven spindle. Takes know-how and equipment plus skilled technicians.

**NOTE:** All spindles repaired or reconditioned by GOSSETT are precision straightened before they leave our shop. All work is guaranteed.

*Let*

**GOSSETT**

**KNOW-HOW AND EQUIPMENT  
BRING EFFICIENCY TO YOUR MILL**

Keeping textile mills running at top efficiency has been our business for many years. The GOSSETT experience and knowledge in precision manufacturing . . . the GOSSETT skilled technicians who repair and recondition textile machinery parts . . . is an important and valuable asset to textile mills everywhere. Give us a call. Estimates gladly furnished.

## WE MANUFACTURE THE FOLLOWING

Spinning, Twister, and Spooler Spindles and Bases •  
• Picker Feed Rolls • Card Feed Rolls • Comber  
Detaching Rolls • High Production Comber Feed Rolls •  
Comber Draw Box Rolls • Drawing Frame Parts  
(Metallic Drawing Frame Rolls, Common Drawing Frame  
Rolls, Calendar Rolls, Slide Blocks, Coiler Parts, Clearers,  
Gears, Weights, Weight Lifting Devices, Traverse

Motions, Cast Iron or Roller Bearing Shells for top rolls,  
Roller Bearing Shells for top comber draw box rolls) •  
Bottom and Top Rolls for roving or spinning frames •  
Lifting Rods and Bushings for spinning frames and  
twisters • Twister Rolls and Stands • All types of Fluted  
Rolls • Mote Knives.

B. W. GOSSETT, PRESIDENT

E. C. MASON, SALES MGR.

H. A. HAYNES, SOUTHERN REP.

**GOSSETT**

**MACHINE WORKS, INC.**

GASTONIA, NORTH CAROLINA



# the bulletin board

Questions, answers, comments and other material submitted by the readers for use in this column should be addressed to Editors, TEXTILE BULLETIN, P. O. Box 1225, Charlotte 1, N. C. All material will be edited properly before publication.

## FURFURAL FACTS

Sirs:

Furfural, with which we are doing some work, is of particular interest to us, as is every mention of nylon. Moreover, we are keenly interested in the South and the industrial development which is taking place there. We appreciate the invitation that was inferred to locate "some nylon factories" in the South. Actually, we have felt that we have had reason to regard nylon as a pretty good Southerner already. Virtually all of our operations in connection with the manufacture of nylon are situated below the Mason and Dixon line. Our oldest nylon yarn plant is at Seaford, Del., on the Delmarva Peninsula. Our second nylon yarn plant is a close neighbor of North Carolina's, being situated at Martinsville, Va. The third and newest nylon yarn plant is at Chattanooga, Tenn. In addition, we produce the basic chemicals, known as nylon salt, for these operations at Belle, W. Va., and Orange, Tex., with another site recently acquired near Victoria, Tex. We bring this information to your attention not as a complaint, but rather in pride of nylon and its operations in the South. Our newest fiber development, "Orlon" acrylic fiber, will be a virtual neighbor of yours at Camden, S. C., where ground is now being cleared in preparation for construction which is scheduled to begin about the middle of March. We hope to have the plant in operation some time in the Fall of 1950.

Charles H. Rutledge  
Public Relations Department  
E. I. du Pont de Nemours & Co., Inc.  
Wilmington, Del.

¶ The above is by way of clarification for a *Spartanburg* (S. C.) *Herald* editorial, "Dr. Shiver's Discovery," reprinted in last month's "What Others Are Saying" section. TEXTILE BULLETIN certainly realizes the extent of Du Pont's operations in the South, but doesn't want any of its readers to think that there are no nylon plants in the area.—Eds.

## COMPLIMENT COLLECTION

Sirs:

I read your BULLETIN from start to finish Saturday and Sunday, and want to congratulate you on having a fine paper. In fact, it

is the best textile paper I have ever read. It is to the point, and we can get lots of knowledge and information by reading it.

W. R. Ennis  
Magnus Chemical Co., Inc.  
Garwood, N. J.

¶ We thank you.—Eds.

Sirs:

I want to thank you for the 1949 *Clark's Directory of Southern Textile Mills*. This contains valuable information, and I make use of it frequently during the year. I want to compliment you on the contribution being made to the textile and allied industries by the TEXTILE BULLETIN. I have followed the progress of this publication for the past 15 years and it is gratifying to see that it has kept pace with the rapidly developing textile industry of the South.

F. Homer Bell  
Southern Representative  
Philadelphia Quartz Co.  
2624 Forrest Way, N. E.  
Atlanta, Ga.

¶ The 1949 Pocket Edition of *Clark's Directory of Southern Textile Mills* is now available; same old price—\$2.—Eds.

Sirs:

In the January, 1949, issue of TEXTILE BULLETIN there appeared an article [Part Three of "So You Want Good Cloth!"] by Frank D. Herring, entitled "Preparing the Starch for Cooking." We would like to obtain a reprint of this or perhaps a copy of this particular issue.

C. C. Kesler  
Director of Research  
Penick & Ford, Ltd.  
Cedar Rapids, Iowa

Sirs:

I would appreciate your sending me for classroom use 50 copies of the articles "So You Want Good Cloth!," by Frank D. Herring, published in recent issues of TEXTILE BULLETIN. Also request information as to when your *Directory of Southern Textile Mills* is published for 1949.

W. Chase Knight  
Assistant Professor  
Textile Technology  
Alabama Polytechnic Institute  
Auburn, Ala.

¶ Mr. Herring's series is proving to be very popular. A limited number of single copies

of each installment still is available, but large orders cannot be filled until the series is published in book form some time in the future. As noted, the pocket directory is now available.—Eds.

Sirs:

In your March, 1948, issue on Page 84 was an article entitled "Direct and Vat Dyeing of Rayon" by John Boulton. Could you supply at this late date one or two copies of this article:

A. J. Kelly  
Burkart-Schier Chemical Co.  
Chattanooga, Tenn.

Sirs:

We would like to secure a copy of the article, "pH In Textile Finishing Processes," which appeared in the April, 1948, issue of TEXTILE BULLETIN.

H. Weiss  
Double Woven Corp.  
of America  
Dunmore, Pa.

## SOMETIMES WE WONDER

What magazines do you have related to textiles, preferably rayon and acetate dyeing and finishing?

Frank Davis  
215 South Spring Street  
Greensboro, N. C.

¶ We have TEXTILE BULLETIN, which is edited for the mills that spin and weave all types of fabrics. In each issue there is a "Bleaching, Dyeing and Finishing" section. Hope you find it helpful.—Eds.

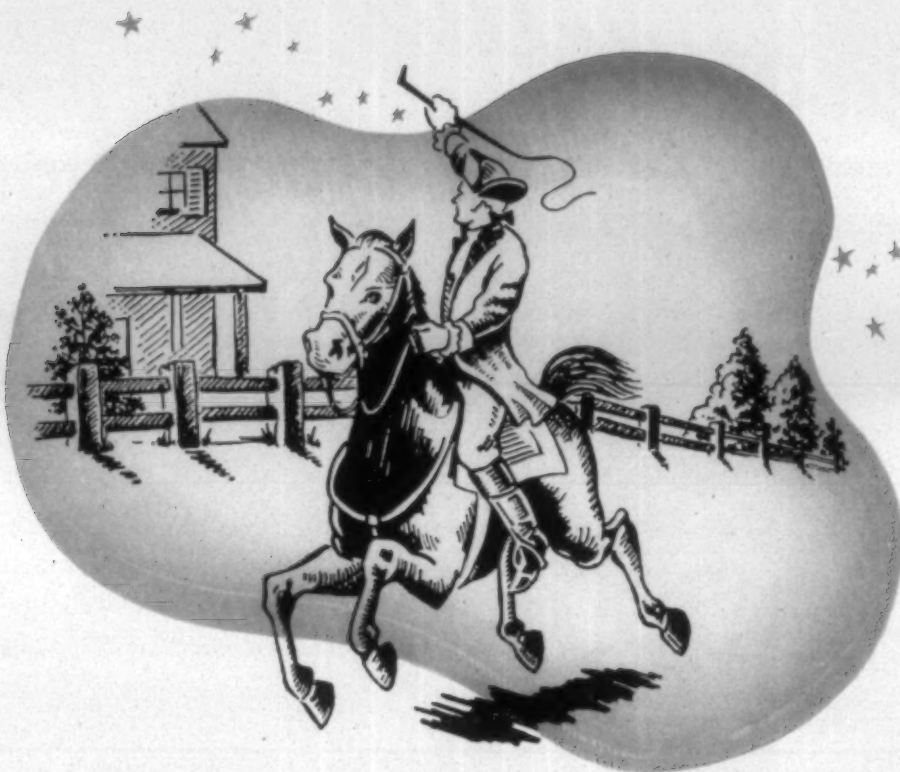
## CORD QUERY

Sirs:

Could you furnish names of concerns manufacturing venetian blind cord? If you can't, please advise where we could get this information. We want names of those who do not manufacture the yarn. We are making some coarse numbers suitable for this work.

L. C. Langston, Sr.  
L. C. Langston & Sons  
Arden, N. C.

¶ Among them are Blue Ridge Cord Co. and Colonial Spin-Braid Co. at Hendersonville, N. C., Icard (N. C.) Cordage Mfg. Co., and Anniston (Ala.) Cordage Co.—Eds.



## ★ R E P U T A T I O N ★

The fitful gleam of two lanterns shining from the steeple of the Old North Church in Boston was the signal that sent Paul Revere on his historic ride through the night — a ride which electrified the New England countryside and spread the fame of the rider throughout the world.

In the space of a single night, Paul Revere gained for himself a reputation which will live forever. But in the manufacturing world of today, reputations are not made overnight. It takes years to assemble an organization of men, equipment and experience which must be combined before a worth-while reputation for quality of product and fair dealing can be established.

For more than a century, Whitin has been engaged in the manufacture of textile machinery. Today we are proud of the reputation for quality which our

machines enjoy in the textile industry. This reputation has been built upon the solid foundation of progress through research, sound engineering, craftsmanship in manufacturing and a service organization designed and maintained to keep Whitin machines operating at their maximum efficiency wherever they may be in use throughout the world.

We are proud of our reputation, but not boastful. Our efforts to live up to it create tangible customer benefits in actual dollars and cents. In mill after mill, thousands of Whitin machines are proving worthy of this heritage by operating year in and year out at high rates of production and efficiency with low maintenance expense. You, too, can depend on Whitin. Why not do so when selecting additional equipment for your mill.

# Whitin

## MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS  
CHARLOTTE, N. C. • ATLANTA, GA.

# Announcing

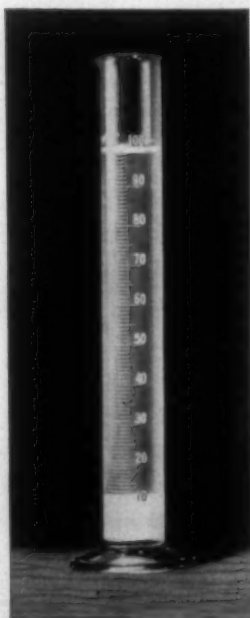
## A New Product for DYERS and PRINTERS

### LOMAR PW

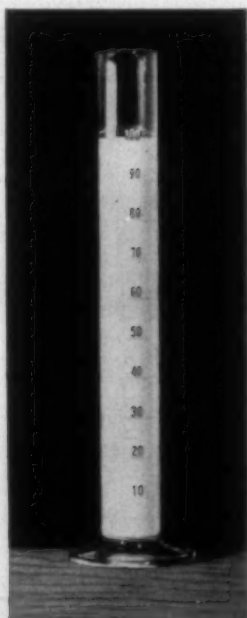
the new dispersing agent developed by Jacques Wolf & Co.,  
assures more efficient and economical processing.

#### TYPICAL OF THE DISPERSING ACTION OF LOMAR PW

The contents of these two graduates are identical, except for a small percentage of LOMAR PW. Note the continued even suspension and dispersion in the right hand graduate after standing ten times as long as the one at the left.



*Blanc Fixe after 30 minutes  
— no dispersing agent*



*Blanc Fixe after 5 hours  
— plus LOMAR PW*

#### • In Dyeing

Level shades and uniform absorption of dyestuffs by the fibres, depend largely upon an even dispersion of colors in the dyebath. The addition of a small amount of LOMAR PW in pasting up indanthrenes or acetates solves this problem.

#### • In Printing

When added to the printing paste, LOMAR gives finer particle suspension, improved flow and smoother consistency. By keeping the colors in suspension, LOMAR PW assures efficient, economical results.

#### • In Backfilling

In backfilling, LOMAR PW is added to the heavy backfill mixture of clay and starches to give uniform suspension of the clay, good flowing properties and more uniform results on the fabric.

*For complete information on LOMAR PW,  
send today for your copy of Bulletin No. 21.*

#### Plants and Warehouses

Plants: Passaic, Carlstadt, N. J.;  
Los Angeles, California

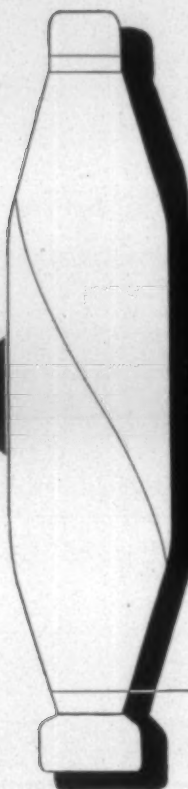
Warehouses: Providence, R. I.; Philadelphia, Pa.;  
Utica, N. Y.; Chicago, Ill.;  
Greenville, S. C.; Chattanooga,  
Knoxville, Tenn.



**JACQUES WOLF & CO.**  
*Chemicals* PASSAIC, N. J.



UNIFORM SIZE



**Numo**  
AUTOMATIC  
SPINNING CONTROL

UNIFORM TAIL

PAT. APPLIED FOR

**DESIGNED FOR ONE PURPOSE . . .**

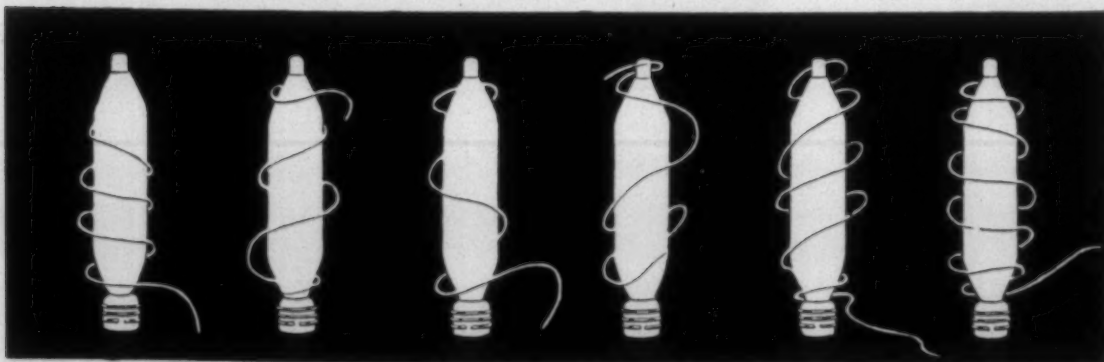
## **TO ELIMINATE UNEVEN PACKAGES AND TAILS**

(applicable to spinning yarn, also warp spinning)

The economy and efficiency of Numo Automatic Spinning Controls have been proved in America's largest textile mills. It offers these major advantages!

- Eliminates the necessity of doffers bearing rail down manually . . . makes doffing easier.
- Eliminates uneven packages from doff, to doff.
- Eliminates chokes on spindles.
- Eliminates uneven tails left at butt of bobbins.
- Increases production by saving time at each doff.
- Reduces number of ends down on doff . . . Effects many other direct savings.
- Uniform packages and tails eliminate the necessity of unraveling long tails and "hunting" for ends. This means less bobbin transfer or break-out, as well as reduction in waste yarn. Once set for desired bobbin size and tail, there will automatically be a duplication on all succeeding doffs.

Write today for illustrated literature showing why more and more mills are turning to NUMO for increased production and lower cost.



**NUMO MACHINE & ENGINEERING CO., INC.**  
CHARLOTTE • NORTH CAROLINA

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Station C, Box 164  
Atlanta, Ga.

The Rudel Mehry, Co., Ltd.  
614 St. James St., West  
Montreal 3, Canada

Walter S. Coleman  
P. O. Box 722  
Salisbury, N. C.

Barnhardt Bros. Export Corp.  
P. O. Box 748  
Charlotte 1, N. C.

Barnhardt International Corp.  
P. O. Box 748  
Charlotte 1, N. C.



# WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Pressure by the President for civil rights and Taft-Hartley Law repeal has created a tight Senate coalition in opposition. His control in the Senate is lost, and reduced to the barest margin in the House. The coalition has a minimum of 36 Republicans and 18 Southerners, a clear Senate majority. Even Republican senators who favor civil rights proposals are refusing to go along on the Truman effort to wreck Senate rules in order to pass them.

Congress has virtually ceased to function because of quarrels and bickering between Truman and the Democratic majority. Most of it is over campaign promise legislation. The only important measure to go through in the first ten weeks of the session was for a boost in the salaries of Truman, Barkley and Rayburn.

Filibuster against Truman's effort to change Senate rules swung over six Southern senators disposed to give support to some of his proposals. It almost wiped out the Republican "liberal" minority opposing the Taft leadership. Truman's influence with Congress is probably at the lowest ebb since he entered the White House.

Prospect is that the Taft-Hartley Law, amended and changed, will be tacked onto the Truman labor bill, with only a change in the law's name. No major provision of the present law seems in imminent danger of being thrown out in the Senate. Several provisions will be much strengthened.

There are indications that Truman's labor bill will be re-committed by the Senate to its labor committee with instructions to work out an equitable, well-rounded law incorporating Taft-Hartley provisions. Senator Morse (R., Ore.) of this committee says he will offer recommittal motion, and is certain of enough votes to pass it.

House defeat of a Truman repeal of the labor law becomes more probable. House sentiment is growing to retain strong features of the present law, and to strengthen features relating to anti-Communist affidavits, separation of supervisory employees from unions, federal powers of injunction, and bans on boycotts and jurisdictional strikes.

The closed shop is not in real danger of being thrown out in either house. Legislators from farm states and districts are getting strong appeals from their voters to retain this provision, and assure rights of non-union workers to jobs.

The President has rejected the advice of his Senate leaders that continued whip-cracking will bring defeat for his whole pro-

# for....

LIGHT FASTNESS  
ON  
RESIN TREATED  
FABRIC

## CHLORANTINE FAST:

|         |       |
|---------|-------|
| YELLOW  | RLSW  |
| ORANGE  | 3GL   |
| BROWN   | 6GLLU |
| SCARLET | BNLL  |
| RED     | 6BLL  |
| VIOLET  | 2RLL  |
| BLUE    | 7RLL  |
| BLUE    | BLL   |
| BLUE    | 5GLL  |
| BLUE    | BCL   |
| GREY    | GRL   |

*These...*

*maintain maximum  
light fastness after  
urea formaldehyde resin  
treatment...  
for stabilization  
and crush  
resistance.*





# Ste-hed-co

## Loom Harness Frames

### Weave the World's Needs!



STEEL HED

# STEEL HEDDLE MFG. CO.

2100 W. Allegheny Ave., Philadelphia 32, Pa.

**SOUTHERN SHUTTLES DIVISION** 621 E. McBee Ave. Greenville S.C. and Paris S.C.

**MANUFACTURERS OF—**

- Flat Steel Heddles
- Loom Harness Frames
- Loom Reeds
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## WATCHING WASHINGTON

gram. He's demanding full speed ahead in the hope Republican "liberals" and some Southerners will swing to his support. Only two Southern senators are sticking to him.

One of the biggest log-jams in legislative history is building up for June and July as Congress rounds out its third month without action on a single major bill. All appropriation bills are yet to be passed, and there's no action yet on any foreign aid proposal.

Resistance to \$4 billion in new taxes is growing in both branches. Corporate taxes will probably be unchanged, excise taxes may be reduced slightly, and existing payroll taxes may be increased to 1½ per cent. There's small chance of widening old age retirement coverage and increasing benefit payments.

Social welfare programs which the President is asking would eventually cost over \$25 billion a year. This is the estimate of fiscal experts of the Ways and Means Committee. This sum would be in excess of all federal spending now apart from national defense.

Rankin's veterans' pension bill has put the Administration in a hot spot. He will force a recorded vote in the House, but expects the total to be clipped in final passage. The President will have to do the obnoxious thing of vetoing it. Overriding a veto is doubtful; Rankin doesn't expect it.

Change in the rising tide of unemployment is hoped for by the Administration with the start of farm and seasonal work. The Commerce Department says 3,221,000 persons were known to be unemployed in February, a rise of over 2,000,000 since October.

Truman's proposals for plant expansion, wage and price controls, compulsory and health insurance, like civil rights, have small chance in this session. Passage of his national security bill, extending controls over every phase of industry, has a chance only if Russians become more threatening.

Newest idea of John L. Lewis is to have his union sit in with management and "schedule" production. He's expected to offer it in his coming wage conference. Owners call it an adroit scheme to restrict output and hold up prices. In fact, they say, prices would only go up.

Lewis claims his scheme would spread work, hold up wages and spread employment. Mine owners believe it would impinge on the anti-trust laws. The big show-down for Lewis must come not later than May 1.

The Veterans' Administration is a national disgrace and its waste of money a scandal, according to charges spread in the Congressional Record. The charges appeared first in a national magazine, and said the agency spends \$6 billion a year, with 200,000 employees, and is "hopelessly muddled."

Majority leaders in the Senate are beginning to snipe at each other as the Truman program bogs down under more obstacles. Southern senators are chiding them to "turn things over to the Republicans" in the hope of getting pending bills passed.

# textile bulletin

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## Inferior Fabrics

The following is a newspaper clipping which should greatly interest manufacturers of garment fabrics, especially those made from synthetic fibers or blends:

Danville, Va.—Local cleaners and dyers are reported heavily concerned over new fabrics which are reaching the market in the form of finished garments which do not respond to normal cleaning processes.

Last night local tradesmen met and discussed the matter with cleaners and dyers from several Virginia cities and counties. It was one of the first meetings of its kind held in this state.

The complaint is that people send new dresses to the cleaners and they emerge from the cleaning processes practically ruined.

Last night's discussion involved methods of approach to manufacturers asking them to abstain from putting inferior fabrics on the market, and a new device which tests the garment before it is cleaned, showing whether or not it can be safely handled.

When fabrics were difficult to obtain, almost all defects and deficiencies were overlooked, but we now have a buyer's market and complaints will be heard especially when buyers wish to obtain allowance upon goods purchased at a higher market price.

However, we cannot brush aside the above mentioned complaint solely upon the grounds that the textile goods market has declined.

Many mills have not had enough experience in the manufacture of goods from spun synthetic fibers or blends to really know the wearing qualities of the goods they are producing, and while many of the spun rayon or blend fabrics are beautiful in appearance and attractive to buyers, a few of them lack the wearing qualities which the buyers have a right to expect.

In years which have passed, all that a manufacturer of garments needed to know was the quality and characteristics of goods made of cotton or wool.

Today the garment manufacturer is offered many beautiful fabrics made of different types of synthetic fiber yarns

and also yarns made of a multitude of blends of synthetic fibers or blends of different synthetic fibers with cotton or wool.

Experienced manufacturers of fabrics know that certain dyes act differently upon each type of synthetic fiber and that if a yarn is made of a blend of two or more synthetic fibers, the dye may be right for one of the fibers used but not right for the other.

Dyeing and finishing fabrics of spun synthetic fibers, or blends, requires far more knowledge and experience than has been required for the dyeing and finishing of fabrics made of cotton or wool.

Realizing the need for a more complete training of young men for dyeing, finishing and printing, we appeared before the North Carolina Budget Commission last October and asked it to recommend to the present state legislature an appropriation of \$200,000 with which the School of Textiles at North Carolina State College could purchase miniature dyeing, finishing and printing machines for student instruction.

When one large manufacturer of textiles heard of our effort, he volunteered his assistance and stated that he had recently sent two representatives to Europe to try to find, in England or in Germany, some competent dyers, finishers and fabric printers who might be out of work and therefore be available.

Knowing that the garment manufacturers are going to need young men who not only know cotton and wool fabrics but have knowledge of the dyeing, finishing and wearing qualities of fabrics of spun synthetic fibers and blends, we approached the garment industry two years ago about financing the establishment of a course in Garment Design and Manufacture in the School of Textiles at North Carolina State College.

Some of the progressive leaders of the industry responded by pledging liberal donations each year for a period of three years but the required amount has not yet been pledged.

The garment industry is the third largest industry in the United States, but there is no place to which a garment manufacturer can send his son, or some other young man, to be trained for the industry.

Such incidents as are recited in the story from Danville, Va., showing that some garment plants are being managed by men who lack the required knowledge of either modern fabrics, dyestuffs or finishing, will soon awaken the garment industry to the need for well trained young men.

Garments made of fabrics, which will not hold their shape or colors, will be thrown back upon the manufacturer and losses will be many times the requested donation for the establishment of a course in Garment Design and Manufacture.

The textile industry is alive to the value of well trained young men and are already interviewing those who will graduate from the schools of textiles in June.

The garment manufacturing industry, the third largest industry in the United States, has never had experience with especially trained young men, and many of the garment manufacturers do not realize their value.

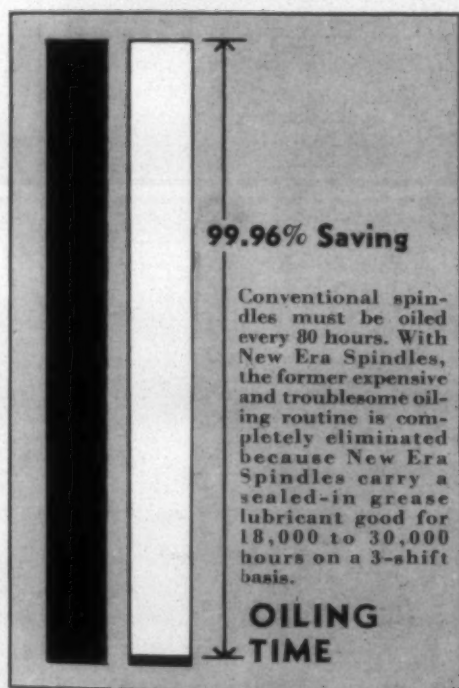
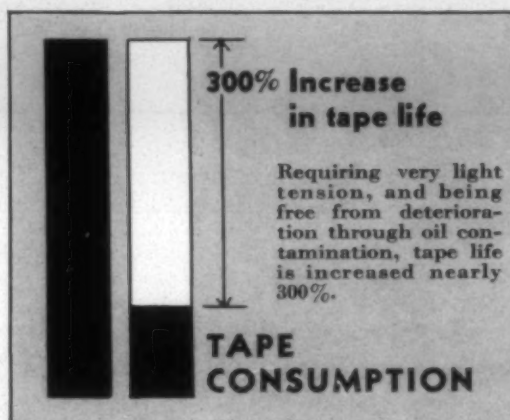
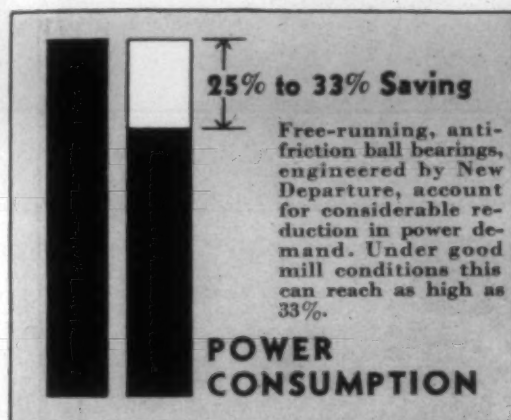
We believe that there should be a course in garment design and manufacture in one of the textile schools and that after it is established the garment manufacturing industry will wonder why it went so long without especially trained young men.



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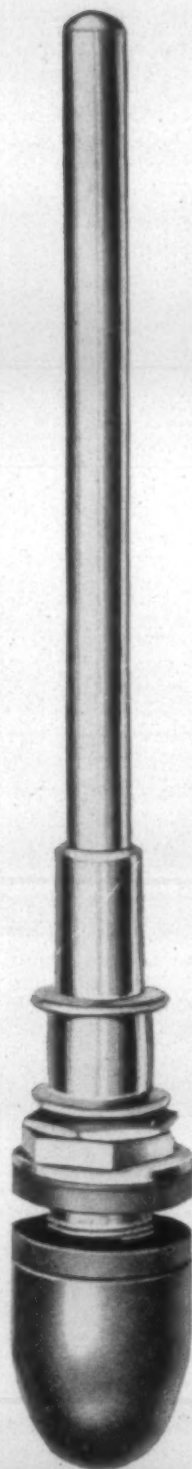


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## Professor Eaton Retires

The School of Textiles at Clemson College announces that Prof. R. K. Eaton has asked for retirement from active duty.

Professor Eaton has been regarded as one of the ablest teachers of textiles in the South and, during his 25 years of devoted service to the school, won the admiration, respect and friendship of the many hundreds of young men who studied under him.

The School of Textiles at Clemson College will not seem to be the same without him but he has well earned a rest and he has the satisfaction of knowing his has been a job well done.

## A New Low in Demagogy

At a recent hearing in Washington, D. C., Senator Claude Pepper of Florida said:

As a general rule, it was the poor people whose sons went to the battlefields and a lot of the manufacturers' sons who stayed at home and got rich.

That statement was not only untrue but is a reflection on the members of every draft board in the United States. Senator Pepper is in our opinion one of the most contemptible men in public life today and his statement constitutes a new low in demagogy.

## Textile Building At Georgia Tech

We recently visited the Textile School at Georgia Tech and Dean Dickert showed us the new building which is partially completed but should be ready at the beginning of the Fall term.

It is an excellent building and shows that it was very carefully planned.

We were especially impressed with the continuity of the machinery departments and the excellent arrangements. Like many modern mill buildings, it has few windows and has air changes and air conditioning throughout.

The School of Textiles at Georgia Tech has long been handicapped by a very poor building but it will soon have one which compares favorably with any in this country.

Much new and modern equipment is to be installed when the new building is complete, in fact, a considerable number of new machines are now stored in warehouses in Atlanta.

## Walter Gayle

News of the sudden passing of Walter W. Gayle of Charlotte, N. C., vice-president in charge of Southern sales for the Saco-Lowell Shops, came as a great shock to the textile industry of the South.

A native of Montgomery, Ala., a graduate of the University of Alabama and the Philadelphia Textile School, Walter Gayle had by hard work and his personality made a place for himself within the textile industry. Not only was he highly regarded for his ability and character but he had the happy faculty of making friends and we doubt that there is another man in the industry who can count such a large number of friends or would be so greatly missed.

## TEXTILE INDUSTRY SCHEDULE

March 31-April 2—Annual convention, AMERICAN COTTON MANUFACTURERS ASSOCIATION, Palm Beach-Biltmore Hotel, Palm Beach, Fla.

April 2—PIEDMONT SECTION, A. A. T. C. C., Robert E. Lee Hotel, Winston-Salem, N. C.

April 11-12—American Institute of Electrical Engineers CONFERENCE ON THE INDUSTRIAL APPLICATION OF ELECTRON TUBES, Statler Hotel, Buffalo, N. Y.

April 14-15—Annual meeting, FIBER SOCIETY, Clemson (S. C.) College.

April 14-16—11th annual meeting, ALABAMA COTTON MANUFACTURERS ASSOCIATION, Hotel Buena Vista, Biloxi, Miss.

April 16—NORTHERN NORTH CAROLINA-VIRGINIA DIVISION, S. T. A., Spray, N. C. (tentative time and place).

April 22—PIEDMONT SALES CONFERENCE, Charlotte, N. C.

April 23—EASTERN CAROLINA DIVISION, S. T. A., North Carolina State College School of Textiles, Raleigh.

April 25-28—Fourth SOUTHERN MACHINERY AND METALS EXPOSITION, Atlanta (Ga.) Municipal Auditorium.

May 2-7—INTERNATIONAL TEXTILE INDUSTRIES EXPOSITION, Grand Central Palace, New York, N. Y.

May 4-6—Annual convention, COTTON MANUFACTURERS ASSOCIATION OF GEORGIA, Sheraton Plaza and Princess Issema Hotels, Daytona Beach, Fla.

May 4-6—Annual NORTH CAROLINA STATEWIDE INDUSTRIAL SAFETY CONFERENCE, Robert E. Lee Hotel, Winston-Salem, N. C.

May 6-7—Annual convention, PHI PSI FRATERNITY, Biltmore Hotel, Atlanta, Ga.

May 9-13—Fourth NATIONAL TEXTILE SEMINAR, Shawnee Inn, Shawnee-on-the-Delaware, Pa.

May 9-14—NATIONAL COTTON WEEK (sponsored by Cotton-Textile Institute and National Cotton Council).

May 10-13—18th NATIONAL PACKAGING EXPOSITION, Atlantic City (N. J.) Auditorium.

May 12-14—Annual outing, CAROLINA YARN ASSOCIATION, Carolina Inn, Pinehurst, N. C.

May 26-28—Annual convention, TUFTED TEXTILE MANUFACTURERS ASSOCIATION, Atlanta-Biltmore Hotel, Atlanta, Ga.

May 30-31-June 1—Sixth annual SPINNER-BREEDER CONFERENCE (sponsored by Delta Council and Southern Combed Yarn Spinners Association), Charlotte, N. C.

June 16-18—Annual convention, SOUTHERN TEXTILE ASSOCIATION, Mayview Manor, Blowing Rock, N. C.

June 24-26—PIEDMONT SECTION, A. A. T. C. C., Ocean Forest Hotel, Myrtle Beach, S. C.

June 27-July 1—Annual meeting, AMERICAN SOCIETY FOR TESTING MATERIALS, Atlantic City, N. J.

Sept. 26-28—NATIONAL ELECTRONICS CONFERENCE, Edgewater Beach Hotel, Chicago, Ill.

Oct. 13-14—43rd annual meeting, NORTH CAROLINA COTTON MANUFACTURERS ASSOCIATION, Carolina Hotel, Pinehurst, N. C.

Oct. 13-16—National convention, AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS, Chalfonte-Haddon Hall, Atlantic City, N. J.

Oct. 27-28—Annual meeting, CARDED YARN ASSOCIATION, Sheraton-Bon Air Hotel, Augusta, Ga.

Nov. 3—Annual meeting, COTTON-TEXTILE INSTITUTE, New York City.

Nov. 5—PIEDMONT SECTION, A. A. T. C. C., Charlotte Hotel, Charlotte, N. C.

May 8-12, 1950—AMERICAN TEXTILE MACHINERY EXHIBITION (and Allied Industries), Atlantic City (N. J.) Auditorium, sponsored by National Association of Textile Machinery Manufacturers.

Oct. 2-7, 1950—16th SOUTHERN TEXTILE EXPOSITION, Textile Hall, Greenville, S. C.

Oct. 19-21, 1950—National convention, AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS, Statler Hotel, Boston, Mass.

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## What Is A Good Labor Law?

SINCE mankind began to organize into groups for a move toward civilization there have been rules and regulations governing the conduct of these groups. There have always been laws—even when they were just a set of informal ground rules applying to life in the caves and on the plains. As civilization becomes more complex the regulations we live by become more involved.

And today we have many laws on many subjects. These include labor laws, some enacted by the National Government and a varied pattern of others that apply by states. Apparently conditions of labor must be prescribed by law as conditions of health, education, traffic, and so on must also be regulated.

At this very moment there is great activity on Capitol Hill at Washington and in the halls of state capitols throughout the land. The usual welter of rules, regulations, and directives is being hatched by these groups of law makers—all designed to require management to do the right thing by labor and labor to play fair with management. The Taft-Hartley Law is under dispute, state closed shop and "right to work" bills are under vigorous debate in many legislative halls.

All this is necessary because we haven't stuck by and followed to the letter one basic law—the eldest of them all—that should always apply where men live together and deal with each other. This particular rule is as applicable today as it has been throughout history. It embodies the philosophy and the teachings that we should treat other people as we would like to have them treat us.

This original "fair play" law is known as the Golden Rule. If we all followed the Golden Rule we wouldn't need Taft-Hartley laws, Wagner acts, or anything else. With Burlington Mills the Golden Rule has been a basic thing. Those fixing company policies faithfully, and always, seek to treat those who comprise the Burlington family as they themselves would like to be treated. That makes operations, relationships, associations simple, fair and pleasant. That means that we have

already complied with every other law even before it is put on the books.

Burlington Mills thinks that the Golden Rule is a good labor law—in fact the very best one that has ever been devised. — *Bur-Mil News*, Burlington Mills Corp., Greensboro, N. C.

## We Help Set Standards

ALTHOUGH there is a wide difference of opinion as to whether we are in a mild recession, or a slight adjustment period, there can be no question but that the textile industry at this time has suffered a very major setback. Today there are textiles actually selling well below cost. Buyers of textiles are very, very critical, and they evidently expect standards of quality far higher than they have ever required before.

Each of us, no doubt, is partly responsible, as we may be expecting higher standards than we did even before the war.

We are also all becoming price conscious. We have no quarrel with that attitude. We consider it much healthier than during the war period when everybody seemed to care little about prices, not too much about quality, but was chiefly concerned with getting what they wanted, and particularly those items that were scarce.

Although we do not consider the buyers' tastes becoming more discriminating as bad, we do realize that the present condition offers a most serious challenge to textile mills. They are face to face with the type of American competition which inspires good management and good employees to try to become more efficient and meet the demands of the public.

It is true that during such periods as we are now in, some plants and their employees do not fare as well as other plants and their employees. The type of product manufactured does have something to do with that type of situation, but by and large, the ability of management and the co-operativeness of the employees are major factors in determining how successful and how continuously the mills can operate.

Each employee of the local mills should fully realize the seriousness of the present situation, as we believe that with this realization full co-operation in meeting quality demands of the pub-

lic will be forthcoming. It must be realized that both quality and cost at this time will have a whole lot to do with how many days a week the mills will be able to operate.

In fighting this battle of quality, no employee can completely escape responsibility. Small things that happen within a plant can be responsible for seconds and off-goods—small oil spots, improper cleaning, poor doffing, bad weaving and loom fixing, and practically every other operation in the plant can produce goods that you yourself would not buy as first quality goods. You are a part of the buying public, and therefore, the standards that you have set when you buy are not too different from the standards the average citizen has set in buying.

It is truly imperative that we all co-operate for our own common good.—*The Textorian*, Cone Mills Corp., Greensboro, N. C.

## Enforced Air Conditioning

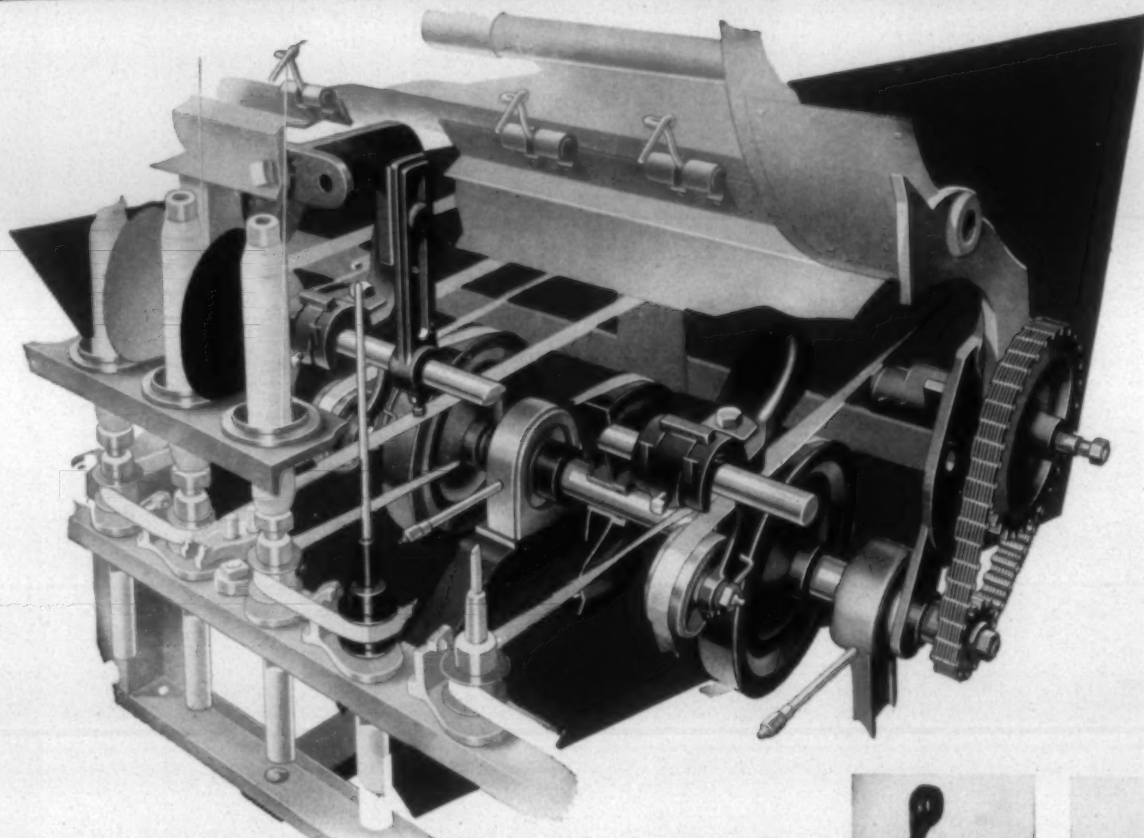
THE pending proposal that all textile owners be required, by law, to air condition their plants by refrigerated process is causing just concern. The House committee on labor has given a majority favorable report to the measure. Therefore it is on the calendar for action.

Both Georgia and North Carolina have voted down similar proposals. For South Carolina to pass such a measure would undoubtedly react to our disadvantage in our efforts to attract industries into our state.

We agree that textile plants should be properly ventilated and lighted, and that working conditions should be conducive to good health and comfort. We applaud those mills which have installed cooling machinery such as the air wash. But we can't agree that by law textile manufacturers should be compelled to install air conditioning. Under the terms of the pending bill even air wash systems now proving satisfactory would not qualify.

We hope members of the assembly will weigh every angle of the air conditioning bill before enacting it into law. We are in keen competition for industry, and we are getting our share of new plants. Let's not frighten capital away.—*The State*, Columbia, S. C.

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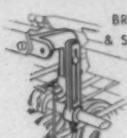
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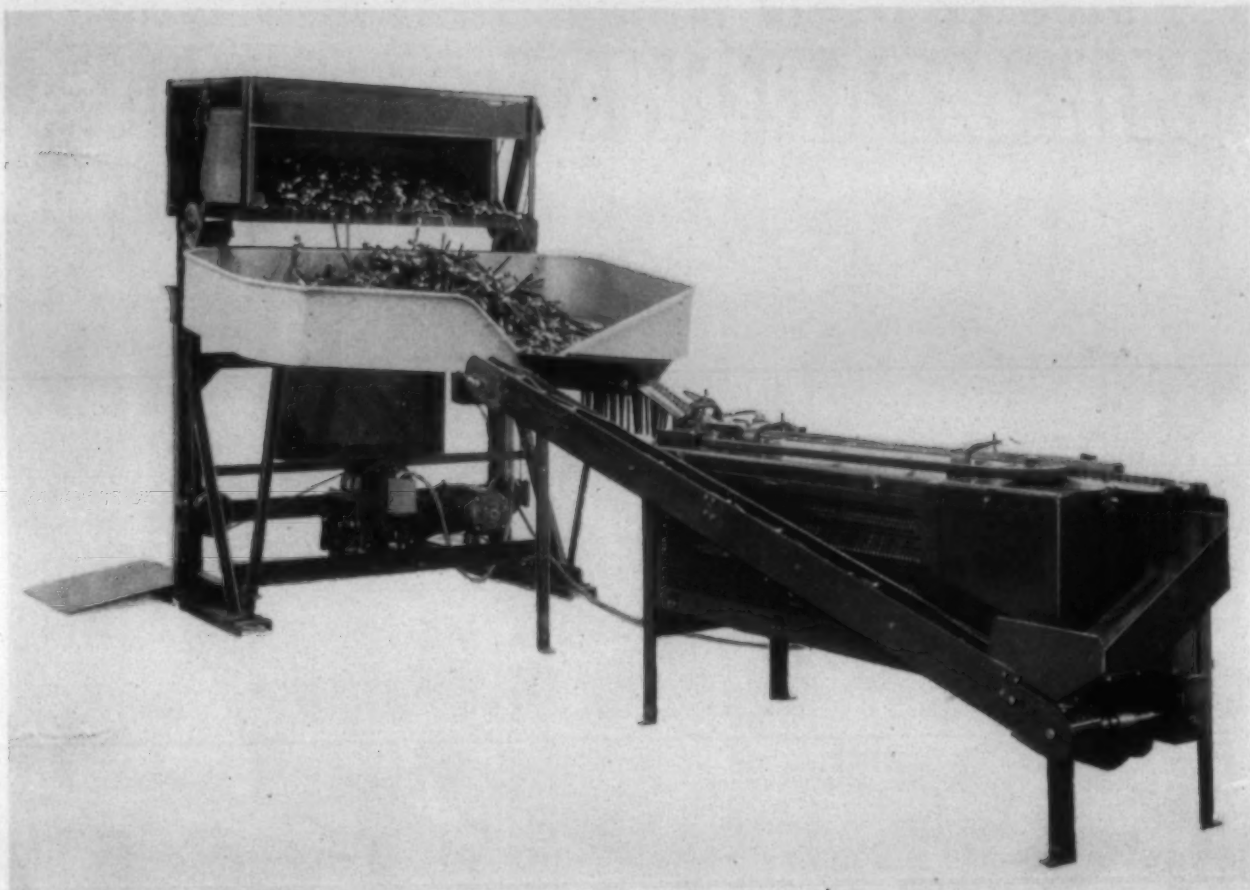
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## Cotton's Increasing Competition — What Should Be Done To Meet It

By ROBERT B. EVANS, Agricultural Economist  
Southern Regional Research Laboratory, New Orleans, La.

THE cotton industry today is in a very real fight for its existence. Cotton always has had plenty of competition, but in the past it has more than held its own. During the last few years, however, two competitors — synthetic fibers and paper—have been making a particularly successful attack upon cotton's end-use markets. The full effect of this competition has not been felt, thus far, because of the huge, unprecedented demand as a result of the war for all sorts of textiles. But, now that the industry has returned to a buyers' market, the story may be different. My purpose is to discuss cotton's standing in relation to this competition, and to point out some things we must urgently do to meet it.

The great bulk of cotton's use is, of course, in the textile field. Our total consumption of all fibers increased rapidly until about World War I; then the trend leveled off and was only slightly upward during the 1920-1940 period. With World War II, however, our total consumption of fibers jumped abruptly to an all-time high. Although it is now declining, it still is substantially higher than pre-war.

There is an important point about this trend that I would like to emphasize. During the long period from 1905 to 1939, our total consumption of fibers was increasing at about the same rate as our population. In other words, our per capita consumption was unchanged during these 35 years. We each used 41 pounds of textile fibers, if we were alive back in 1904, and we were still using just 41 pounds of these fibers if we were alive in 1939. During World War II, however, our per capita annual fiber consumption jumped to more than 55 pounds; and, although it was down to 48 pounds during 1947, this total was still far larger than at any time before the war.

I am not going to risk a prediction as to what the future will bring. I would like to point out, however, that the population of the United States is growing pretty rapidly—12 per cent more people now need clothing and other fiber products than in 1939. Even if per capita consumption of fibers were to drop back to the pre-war 41-pound level, we would still have a substantially larger textile market than we had before the war.

But let me go on. That cotton is still used in the United States more than all other fibers combined—as it has been

for at least 50 years—is highly significant. How has cotton been able to maintain such a position? I should like to stress the answer: Markets go to the product which gives the consumer the most for his money. Cotton's strong hold on textile markets has been due to the fact that it possesses an outstanding combination of excellent properties, plus the fact that it has been available at prices which have made it the world's best buy as a textile raw material.

Although cotton still is used more than all other fibers combined, I should like to point out that cotton's percentage of the total textile market, after jumping from 61 per cent pre-war to a peak of 71 per cent in 1942, has since been steadily declining, and in 1947 was down to 58 per cent. On the other hand, rayon's percentage of the total market has steadily increased from six per cent pre-war to 13 per cent in 1947. Thus, the fact that cotton consumption at present is actually higher than before the war is not as reassuring as at first glance it appears, since cotton's percentage of the vastly expanded textile market has declined.

I have already mentioned that cotton has lost important end-use markets during the last few years to rayon and paper, and faces the prospect of greatly intensified competition from them in the future. Cotton also faces competition from synthetic fibers other than rayon, which only now are beginning to be produced in quantity. I shall attempt to relate why each of these materials is a very serious competitor of cotton.

Rayon, or synthetic fiber made of cellulose, has been produced in the United States since 1911, but has scored its greatest increase in consumption during the last few years, increasing from the equivalent of 1.1 million cotton bales in 1939 to the equivalent of 2.3 million bales in 1947. A still further increase to the equivalent of 2.8 million bales is expected in 1949 as new rayon plants, now going up, are completed. What has been the cause of this tremendous expansion? It has been due largely, first, to a steady improvement in quality; and second, to a downward trend in prices.

### Improvement in Quality

Taking the first of these factors, improvement in quality, rayon has been improved during the last 15 years in appear-

ance, drape, wrinkle resistance, color fastness, and washability, to name only some of the improved characteristics. Two specific developments, however, are directly associated with three-fourths of the huge production increase since 1939, first, rayon staple fiber; and second, high tenacity rayon.

Until about 1935, practically all rayon was in continuous filament yarn form, similar to silk. Then rayon staple fiber, or rayon cut into short fibers, entered the picture and ever since has been increasing rapidly in importance. This development had a dual effect: it opened the door to the vast cotton spinning industry as a potential consumer of rayon and, at the same time, offered this industry something it never had before, an alternative to cotton as a raw material. By using rayon staple it is possible to make entirely different types of fabrics than can be made from continuous rayon yarn—fabrics that frequently resemble very closely standard cotton and wool constructions. Last year, consumption of rayon staple in the United States—most of it consumed in cotton system mills—totaled the equivalent of nearly 600,000 bales of cotton.

Poor strength was one of the difficult problems that the rayon industry had to conquer to make a usable fiber. By 1937, thanks to continued research, rayon had enough strength for many clothing and household uses. It was still barred, however, from industrial and certain other uses dominated by cotton, where high strength is important. About this time, the rayon companies introduced what they call "high tenacity rayon," a type 80 per cent stronger than the ordinary viscose type used in clothing. This type of rayon makes possible cords and fabrics equal or superior in dry strength to cotton cords and fabrics. Production of high tenacity rayon was expanded tremendously during the war for use in tires, and by 1947 totaled the equivalent of more than half a million bales. Only lately has the rayon industry begun to exploit the possibilities of this type of rayon for other purposes.

But while such improvements in rayon have placed it on a quality par with cotton in many uses and have given it an actual advantage over cotton in certain others, cotton still has advantages in durability, wet strength, launderability, and other important properties. Looking to the future, however, and considering the amount of research continually being done on rayon, it can be expected that rayon will become suitable from a quality viewpoint for still more textile requirements. Although the intrinsic worth of cotton as a textile material should not be underestimated, I should like to emphasize strongly that it would be unsafe for the cotton industry to assume that cotton will have any important margin of quality superiority in the years ahead.

### Price Trends

As I mentioned earlier, price is another highly important factor in competition between rayon and cotton. Cotton had a tremendous advantage in price over rayon at the beginning of the war. But this situation changed and most of the time since the end of the war cotton actually has been priced higher than rayon.

Last Fall, regular viscose rayon staple fiber sold for 37 cents per pound, net, delivered to the mills. Compare this to the current price for cotton: last August, middling  $\frac{1}{16}$ -inch cotton was selling for 31.31 cents. But by the time

this grade and staple has been shipped to the mill, brokerage paid, bagging taken off, and a loss of ten per cent taken for waste, it costs the mill about 38.6 cents per pound. It thus is at a disadvantage of 1.6 cents per pound on a usable fiber basis as compared to rayon.

This simple cost-per-pound comparison is merely an example and hardly does justice to the subject of rayon vs. cotton price competition. Since rayon staple fiber sells for the same price regardless of staple length, while the price of cotton increases rapidly with increases in length, long-staple cottons are at much more of a price disadvantage compared to rayon than are short-staple cottons. It also should be mentioned that most rayon is made in yarn form and, therefore, should be compared in price with the price of cotton yarns. Before the war, cotton yarns were generally lower in price. In September, coarse cotton yarns were priced about the same as rayon yarns, while fine cotton yarns are higher. The finer the yarn size, the greater cotton's disadvantage.

Of tremendous importance to cotton growers and everyone else interested in cotton are such questions as: What kind of rayon prices can be expected in the future? Will rayon prices decline? If so, how much? To see if we could arrive at the answers to these questions, we made a fairly detailed study of rayon costs, profits, and prices at the Southern Regional Laboratory. Here is the way it seems to us:

The rayon industry has been making substantial profits and is an industry that is constantly finding new ways to do things more efficiently. It, nevertheless, has had its share of post-war inflation in its cost of doing business. The cost of building a new rayon plant is now twice as great as before the war. The average wage rate in the industry at present is about \$1.45 per hour as compared with 65 cents per hour during 1939, and the cost of wood pulp and chemicals per pound of rayon is now 14.1 cents as compared with 6.6 cents in 1940. A pound of viscose rayon staple fiber, which cost 19 cents to make before the war and sold for 25 cents, recently cost about 29 cents, sold for 37 cents. From these and other data, I believe we can conclude that it would be difficult for the rayon industry to make more than small reductions in prices as long as the present cost structure continues. Even if there were a substantial decline in business activity, it would be hard to visualize rayon prices dropping more than a few cents per pound because of the stability to be expected in overhead costs and the cost of chemicals, and the fact that labor organizations in the industry could be expected to oppose wage cuts.

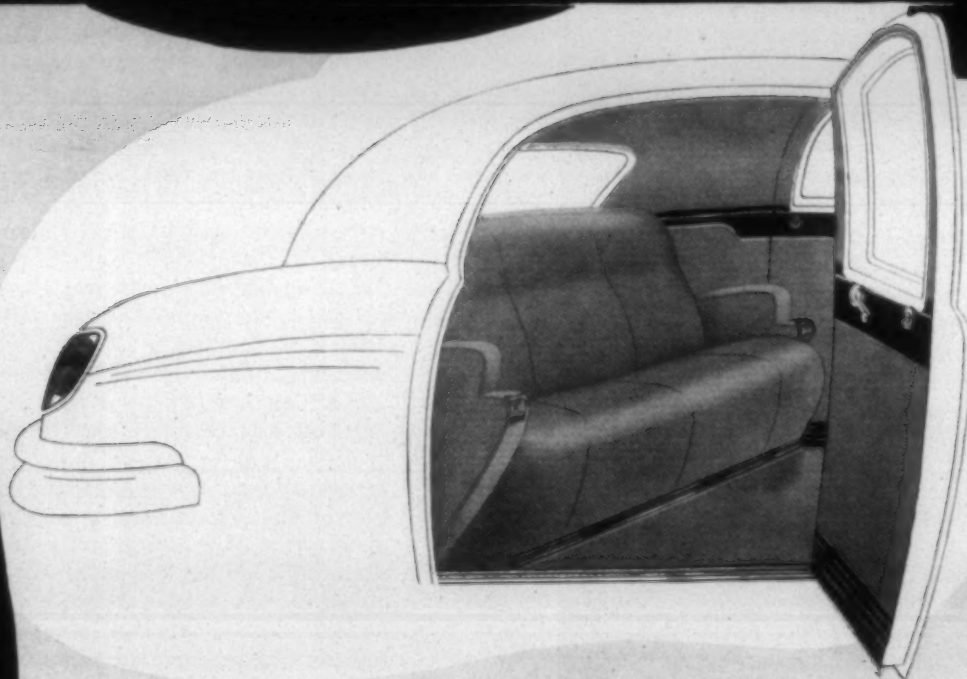
During the last two years the rayon industry has increased its prices four times in response to rapidly rising costs, finding no difficulty in taking this action because of the unsaturated demand for its product. Whether or not rayon prices are increased again will probably depend on whether there are further general wage and price increases in the American economy. The price of cotton, and status of textile markets will also be strong considerations.

### Rayon's Inroads Into Cotton Markets

As rayon's quality and price position has improved, it has been able to expand into more and more textile markets. Consumption in women's clothing, always rayon's most important end-use, has continued to increase, and in addition

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BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY



rayon has made considerable headway in men's suit linings, Summer suits, sport shirts, and slacks. Before World War II, hardly any rayon was used for industrial purposes, but it now is used in large quantities in tire fabric. Production of rayon tire fabric increased from nine million pounds in 1939 to 230 million pounds in 1947, comprising 40 per cent of all tire fabric produced during that year.

This invasion of rayon into the tire fabric market is of tremendous concern to the cotton industry. Before the war, all tire fabric was made of cotton, and tire fabric is still cotton's most important single end-use market. An alarming aspect of these inroads of rayon is the price advantage rayon currently has over cotton tire fabric—rayon sells for 44 cents per square yard against cotton's 65 cents. In addition, manufacturers say that although in passenger car tires there is little, if any, quality difference between the two, in truck tires rayon gives better service than present commercial cotton fabrics. With this the situation, tire manufacturers are using all the rayon they can get. In addition, however, because of the huge demand for tires, they are finding it necessary to use record-breaking quantities of cotton tire fabrics.

### The Rayon Industry

In concluding the discussion on rayon, I should bring out one or two facts about the rayon industry which, I believe, have a bearing on rayon vs. cotton competition. There are only some 15 concerns manufacturing rayon in the United States, of which the largest four control about three-fourths of the entire business. This concentration is important because each of the large producers is thus in a position to strongly influence prices, and can launch research and merchandising programs with reasonable assurance that they will react to the concern's own benefit. In this and other ways, rayon manufacture can be said to be the antithesis of cotton production, where the individual producer competes with 1,200,000 other producers, none of whom can perceptibly influence the price or market he gets, unless he unites with many others.

Among cotton's competitors in the rayon industry are some of the best known, most successful American corporations, including such concerns as E. I. du Pont de Nemours & Co., Eastman Kodak Co., American Viscose Corp., and Celanese Corp. of America. All of these concerns have large research departments staffed with men who are at the forefront in their fields of science. In our surveys, we found that rayon manufacturers spend around 1.7 per cent of their sales income or, on the basis of 1946 sales, around eight million dollars annually on research, including not only basic chemical and physical research to develop improved types of rayon, but also research to improve machinery and methods for processing rayon and to adapt it to consumer requirements. In addition, these companies benefit from research on rayon in foreign countries through technical exchange agreements. Rayon firms also engage extensively in such merchandising activities as advertising, quality control programs, publicity and education, and technical and promotional assistance to customers.

### Synthetic Fibers Other Than Rayon

Until about 1935, rayon was the only manufactured fiber in commercial production in the United States. Since that

time, several other synthetic fibers have been introduced commercially, and still others are in a pilot plant stage of development. This new group is making considerable headway. Combined consumption rose from 4.5 million pounds in 1940 to 53 million pounds in 1946; then dropped slightly to 50 million pounds last year. Although this figure is the equivalent only of about 115,000 bales of cotton, it is still a respectable total, already greatly in excess of the consumption of silk or flax in this country.

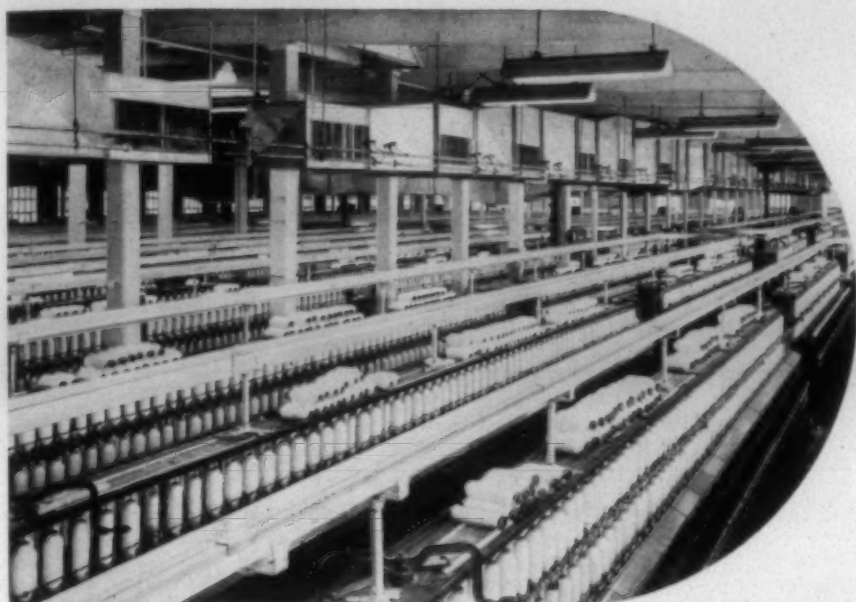
Nylon holds first place among the new synthetic fibers, accounting for more than half of the combined production. Nylon, you may recall, was introduced by Du Pont back in 1938 following many years of research. Its high strength and elasticity led to its first large use, in women's hosiery, where its success has become almost a legend. The entire production was diverted to wartime purposes during the war, but at present, most nylon is back in hosiery again, with smaller quantities going into a wide variety of textiles, including window curtains, airplane tires, thread and fishing lines. Currently, nylon yarn also appears to be making considerable headway in women's tricot knit underwear, a field now dominated by rayon. Recently, nylon staple has been placed on the market for large-scale experimentation, and is being used in knitting yarns for hosiery and sweaters, in automobile upholstery, blankets, carpets, and other uses.

Nylon prices have been reduced substantially since its introduction, but they remain higher than comparable prices for cotton and rayon. For instance, nylon staple currently is quoted at \$1.50 per pound. I have read that Du Pont considers it unlikely that nylon will ever be priced as low as rayon. Nylon's future markets, therefore, can be expected to be in these fields where its superior strength, elasticity, and abrasion resistance are so important as to warrant the higher price charged for it. It is unlikely that nylon will become as important a competitor of cotton as rayon, as long as anywhere near present price relationships continue, although already nylon is replacing cotton in some markets.

Besides nylon, the new synthetic group includes Vinyon and Saran (both made of synthetic resins), protein fiber, and glass fiber. Vinyon and Saran are highly resistant to water absorption and to all but a very few chemicals. They are used for filter cloths, window screens, cordage, seating materials, and similar purposes. Saran staple, recently placed on the market, sells for \$1.25 per pound, and Vinyon staple for \$1.

Another synthetic fiber, casein fiber, was manufactured in the United States from 1939 until 1948, when the plant was sold to another concern which began commercial production of a vegetable protein fiber, probably made of zein or corn protein, or peanuts, last May. This fiber has softness and resilience; but its wet strength, important in laundering and for outdoor clothing, is quite low. It probably will be used mainly in blends with other fibers for clothing. It currently sells for \$1 per pound.

Glass fiber is the oldest of the group of new synthetic fibers of which I am speaking. Although glass fiber is fire-proof and has unusually high strength, it lacks resiliency and ability to stretch. It is used in glass fabrics for insulating motors and other electrical equipment, for filters, and in laminated plastics, coming into direct competition with cotton in the latter use. Recently glass fiber yarns have been coated with resins to improve their resistance to abrasion, and a market in seat covers and upholstery fabric is pre-



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dicted. Although glass fiber is used for draperies and other decorative purposes where it is not subject to flexing, it definitely is not suitable for clothing and many other textile uses.

In summary, synthetic fibers other than rayon are as yet in their infancy. Like rayon, they are products of research, sponsored among others by such concerns as Dow Chemical Co., Du Pont, Carbide and Carbon Chemical Corp., and Virginia-Carolina Chemical Corp. Some of the new fibers have characteristics which seem to promise a bright future in textiles, while others appear to be suitable only for specialty uses. Although it appears that these fibers will continue to be priced much higher than cotton, a tremendous amount of research and developmental work, in the aggregate, is being spent on them, and it can be expected that their quality-priced position will improve. It is only reasonable to believe that they will make a stronger and stronger bid for textile markets in the years to come. It can also be expected that additional synthetic fibers will appear.

#### **Paper as a Competitor of Cotton**

And now I have one more highly important competitor of cotton to discuss: that is, paper. Less than ten per cent of the total paper consumed in the United States is used for products which compete directly with cotton. Paper, nevertheless, has been an aggressive competitor of cotton in recent years. Competition has been particularly severe in such products as bags, towels, handkerchiefs, napkins, window shades, plastics, and twine, products which normally account for about one million bales of cotton annually. Even draperies made of paper are now being extensively sold, taking the place of those made of cotton and other fibers.

Cotton probably has been displaced by paper to a greater extent in bags than in any other use. Bags, I might mention, are usually cotton's second most important use, but for a time during World II they were in first place. Consumption of cotton in bags increased from 505,000 bales in 1939 to an all-time peak of 820,000 bales in 1943, owing to war-time demand and an acute shortage of burlap. But since then, consumption has declined to 448,000 bales in 1947, despite an increased total market for bags. In contrast, production of shipping sack paper has been climbing steadily for several years. During the last few years, there has been considerable displacement of cotton by paper for packaging such commodities as sugar, cement, and fertilizer. At present, a concerted campaign is underway to displace cotton bags for flour.

Paper has been able to displace cotton in bags for certain purposes because of its tremendous advantage over cotton in first cost, an advantage which increased tremendously during the war. This lower selling price for paper bags has resulted in use of cotton bags being now largely restricted to markets where re-use and salvage values are important. In order to maintain cotton's important market in this field, we need to educate people to the re-use and salvage values of cotton bags, as the National Cotton Council and The Textile Bag Manufacturers Association are now doing. We also need to reduce cotton's price disadvantage as much as possible.

#### **Helping Cotton Meet Competition**

It is obvious, I believe, from some of the facts I have mentioned that cotton must battle to maintain its markets.

This raises the question: What should we do to improve cotton's competitive standing? I'm sure that you have been thinking of several courses of action while I have been standing here. Here are a few more obvious ones.

First, we should see to it that cotton has a competitive price. I have talked about price as the most important factor in competition with paper in bags, and in competition with rayon in tires. It is also important in many other end-uses. With rayon and other fibers able to substitute more and more for requirements now met with cotton, price will be a more important factor in the future than it has been in the past in determining how much cotton is used. We undoubtedly could sell a few thousand bales at \$5 a pound, but cotton must have a competitive price if consumption is to be maintained on the scale to which we are accustomed. In connection with price, I might point out one very important fact: By using mechanical methods, cotton can be grown at a cost per pound far under the cost of producing any synthetic fiber. We should capitalize on this advantage.

Second, we should have at least some diversity in the types of cotton we produce. Cotton is used for a wide variety of end-uses, each of which has its own peculiar requirement. The rayon industry makes much of the fact that it can "tailor-make" a fiber for a given use—varying its length, thickness, diameter, and strength, as needed. The cotton industry, also, should have more than just one product with which to tempt its customers. We need high strength cottons for some uses such as tire cord, while luster and softness are much more important properties for dress shirts and women's apparel. The need for a domestic cotton that could replace imported long-staple varieties in thread and other fine textiles is well known. On the other hand, a very coarse cotton of medium staple length might be very valuable for carpets, upholstery fabrics, and filter cloths, where resilience is a big factor. In two other uses, insulation and writing paper, which may be very important in the future, we need to concentrate simply on a maximum, low cost yield per acre, forgetting all about fiber characteristics as we ordinarily think of them.

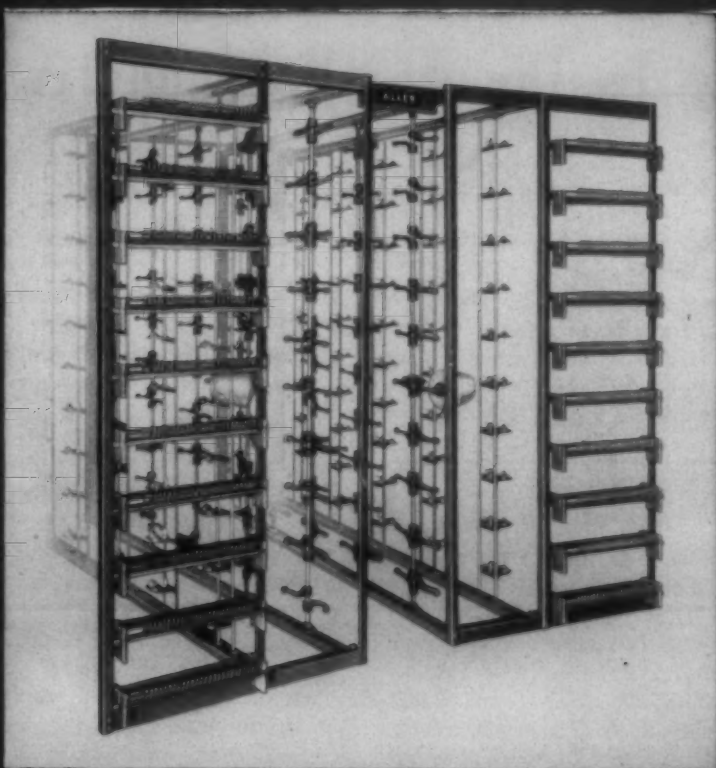
This discussion of fiber properties brings up a third point. At present, scientific knowledge of the relationship between the properties of raw cotton, and the properties desired by the final customer in his end-use product, is very limited. We need to know a great deal more about how well different varieties of cotton contribute to luster, draping qualities, crease resistance, resistance to abrasion, resistance to soiling, and other properties in end-use textiles. I'm afraid that we won't be able to tell the cotton breeders much about what fiber characteristics are needed for various end-use textiles until we do more basic research on this subject. Such data are just as important as knowing how well a given variety will run through the mill.

A fourth point has to do with merchandising. When rayon arrives at the mill it comes in a neat, well-covered bale wrapped in brown water-proof paper. Packaging is highly important in selling a product, yet one year follows another and cotton still can lay claim to being the worst-packaged material in commerce. In addition, anything that can be done, by use of scientific tests, to provide more even-running lots of cotton is important, considering that uniformity is one of the chief advantages claimed for synthetic fibers.

A final point has to do with industry-wide co-operation



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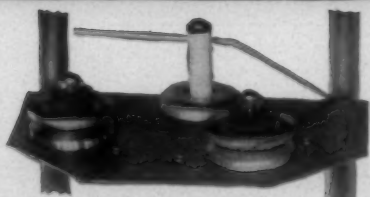
Magazine case arms, which hold any type package by using adapters where necessary.

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Tension adjustable for all fibres



Magazine package arm



Bor-Al-Sil Pigtail Guides  
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Jack Spooler Creels  
All types of Expansion,  
Warper, Beamer and  
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Replacement parts for  
Saco-Loell and  
Entwistle Warpers



in support of cotton. The large companies producing rayon, other synthetic fibers, and paper find it to their advantage to give intense research and merchandising support to their product, all the way down to the final consumer. If a mill has trouble processing the product of one of these concerns, it can get technical advice from the industry just for the asking. If it wants to put a new product on the market, it can expect to receive expert marketing help and promo-

tional backing. The cotton industry should be able to do the same thing for its customers. This calls for united and adequate support by all who have an interest in cotton, of the research and merchandising agencies engaged in promoting the use of cotton.

Mr. Evans' remarks were made before the Fifth Spinner-Breeder Conference at Greenville, Miss., this past Fall.

## Eye Problems In the Textile Industry

By DR. HEDWIG KUHN

**M**INE is a formidable assignment first because the problems are intricate; second, because the need is great—the need of a vision program; third, because professional guidance is more necessary than usual; fourth, because qualified—and by that I mean experience as well as book knowledge—consultation is not too easy to get; fifth, because the returns are tremendous and no textile plant can afford to be without some type of crystal-clear, carefully-thought-out eye program. In order to crystallize the whole thing in the beginning I will give you the several components of an over-all industrial program.

First, the modern industrial eye safety program is based on a survey of eye hazards and the careful choice of eye protective equipment to match the hazard. Here a liaison between the safety man and the eye physician is of benefit to both, and without it many things bog down. Second, a modern first aid and emergency care of eye injuries includes mostly "don'ts" which are much more important than "dos." Third, modern visual testing, tailor-made for the plant; that is the thing we are going to amplify. Fourth, determination of minimum visual standard for placement purposes. Fifth, choice of employees for apprentice training based on careful and detailed evaluation of visual requirements. And there is the gold, the return in dollars and cents. Sixth, a corrective program, worked out in close co-operation with your professional consultant.

What is a visual testing program? There are four types: the plant survey (that is, of payroll employees); pre-employment testing; pre-placement testing (which is different because it includes more things); and periodic re-checks.

What is the purpose? First, to acquire accurate records of visual skills of each employee. A Snellen acuity indifferently taken gives false security and is legally hazardous. Second, a knowledge of basic visual skills is really a requirement in all industries where eyes are obviously essential to excellent production. Lay management is not qualified to decide where it is and where it is not necessary. That doesn't mean that I depreciate and do not appreciate lay management ability. It means that they cannot see that particular picture. Third, a knowledge of the basic visual skills in plants where it is less obvious or not yet proven.

These basic skills consist, first of all, of acuity—that is, sharpness of vision; distance and near with and without correction; phorias—that is, muscle imbalance—how your eyes work together; judgment of distance; and color. Those

are the four things that go into a battery test for visual skills.

There is additional information required in many industries. In some of your departments, such as printing of textiles, there is something else required. But what I have outlined is the A-B-C for any mill in which they put things together.

Secondly, by having accurate visual data the plant can do the following: It can set minimal visual standards for a specific job. It can discover payroll employees laboring under visual difficulties. It can detect visual difficulties before training, and thereby place an employee where eyes fit and not reject employees—that is the "eyes for the job" concept.

The word "screening" is very bad, and I hope that you will eliminate it. It implies "screening out;" actually it "screens in." But the past reputation of the word "screening" implies a discrimination against, and if you will substitute a word like "evaluation" your industrial relations will be much better.

It is absolutely essential to realize that a basic *over-all*, modern industrial eye program is the need, not one that is focused only on visual bottlenecks. The impression frequently is, especially in the textile industry, that you only need an eye program where it is obvious that you need it. It isn't that way. It is obvious where you don't realize it.

What is the instrumentation for such a program? There are several so-called battery tests. A battery test instrument is the bringing together individual tests so you can do them uniformly, rapidly, accurately, with the same illumination, and with the technician who doesn't affect your testing results by his own personal equation.

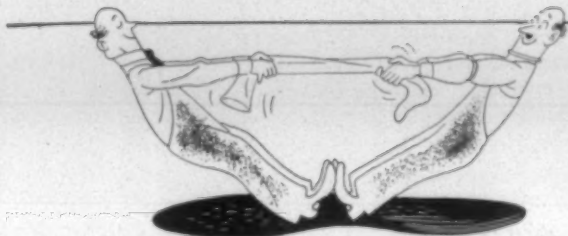
Some of the instruments are the Telebinocular made by Keystone, the Sight Screener made by American Optical, the Ortho-Rater made by Bausch & Lomb. The Welch-Allyn people, who made the Masites, now being used in eye schools, are modifying it for use in industry.

You can do the same thing with individual tests that you do with battery tests, except that they are time-consuming; they are not standardized; and they have this unevenness that individual testers introduce.

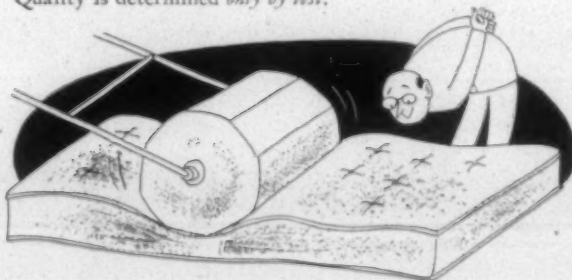
All three battery test instruments are valuable. All are sufficiently accurate for their specific purpose in the industry, except, perhaps, the test for color, which is never satisfactory. In fact, there are very few tests, even in the single,

# These are "Trying" Times

*—be sure to try it before you buy it!*



**The Pull-the-Leg Test.** You should see what a woman's stocking goes through before it reaches a leg. Wow! Snagging tests, abrasion tests, flexing tests, bursting tests, dye and fiber tests. But after all, it makes sense. Quality is determined *only by test*.



**The Sleep-Like-a-Log Test.** They use a mechanical Rip Van Winkle to test the quality of a mattress. Back and forth, back and forth a heavy eight-sided roller passes over the mattress. If the mattress can stand up under 400,000 passes, you can be sure it's one of the best.



**The Lye Test.** Don't let anyone "pull the wool" over your eyes. If you want to make sure a fabric is all wool, simply boil a small piece of it for about fifteen minutes in a solution of lye and water. If the fabric dissolves completely . . . well, it *was* all wool.

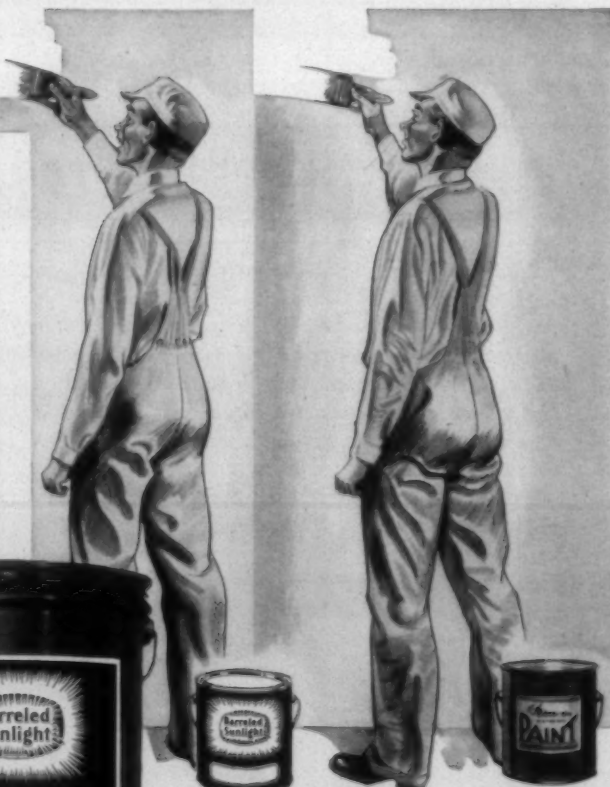
## The Square Foot Test

One of the surest tests to find the best and most economical brand of paint to use in your plant is the *square foot test*. Take a gallon of any good paint and a gallon of Barreled Sunlight. Thin each according to directions on the cans. Then measure the number of square feet each paint covers on a wall. And, because labor represents about 80% of the cost of any painting job, check the length of time it takes to apply each paint. Notice the difference in their whiteness and hiding power after drying overnight.

Yes, compare any good paint with Barreled Sunlight. You'll see that Barreled Sunlight will do a better-looking, longer-lasting job at lower cost for both paint AND LABOR than any other paint on the market.

See for yourself. Let your nearest Barreled Sunlight representative give you a convincing demonstration. Write.

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individual tests, at this time, that are satisfactory. Where color appreciation is important (and that is true in some of the textile mills where color is used and where color codes are followed), then supplementary tests are indicated, such as Farnsworth's dichromatic test and for even more discrimination, Farnsworth's 100 Hue Test. These are not tests that you can put in a battery series or do quickly. They require very painstaking attention. However, the instrument is only a vehicle for a sound program, and it is the program that produces results.

You can have an instrument and have no program and no follow-through on it, and you have nothing. The same tests, properly administered and carried through as part of a program will produce a banner in your company or a gold star on your record.

Of what does the program consist? First, a choice of your testing technique—whether it is battery tests, individual tests, or a combination. Second, an analysis of the records. This can be in the plant. Western Electric has a large statistical staff. They do all their analyzing, minimum job requirements, studying, and research in the plant. Or, you can have it by consultation service, such as Purdue University offers. Do not get amateurs to analyze your record.

The research has been done. The facilities are available for consultation service, if you want them. Your analysis of records should go further and be scrutinized by your professional consultant. That particular part of your analysis of your records is important. It adds that something which cold figures do not give you. Your program incorporates the setting of minimum visual standards by this analysis, plus this review, and then it makes sense to industry.

Very important in your program is the choice of whom you are going to refer to for corrective procedure. Here you need to work with your professional consultant to avoid tangles, reverberations, and boomerangs. This plant guid-

ance does not mean that cases cannot be referred to their physician or doctor of choice. It just means that you have one person helping you to formulate your program.

Ninety per cent, or more, of the referrals are, or should be, for the present, on the basis of acuity defects, either distance or near. That is the one safe thing to send out, because everybody can do something with it. But send them, if they go out, with a job description—measurements of distance from the eyes that their work is; whether it varies; whether one day they do this or that, and what they do the other day. An employee cannot carry an accurate picture of his job to the man who makes his glasses.

Your muscle imbalance referrals depend entirely on whether there is ethical, acceptable, and qualified orthoptic (training) facilities in your specific community. It is delicate and difficult to define who is or is not qualified.

The person with near-vision muscle imbalance problems is in real trouble, and he can profit greatly by orthoptic training. You want to be sure there are or aren't facilities for such training. Such training can really be a racket. There are more colored gadgets called "training" for muscle imbalance than there are qualified programs.

Stereopsis, or depth perception, if it is correctible at all, is correctible through correcting the refraction and/or muscle imbalance problems. You who have no depth perception—everything else being normal—are stuck; you can't acquire it; you can't train yourself to get it. If you have no depth perception, or if it is low, because your eyes don't work together, you can be trained to have a better degree of depth perception. But if the fellow has none, all the training in the world will not give it to him. The same is true of color. You either have it, or you don't have it.

Now, what do you do with the record of an employee's visual skills, assuming that it is accurate? This forms the basis of progressive management-employee joint efforts towards increased production, decreased waste, improved public relations, altered and better results in human engineering. This particular angle needs much more consideration by management, especially in these days when unions are asking for services and protection from all phases of physical decapacities. By having the confidence of the employee in safeguarding his eyes and his visual skills, we have the key to a much closer contact.

Your record enables you to discover the people who are in trouble visually. In one plant a man meeting all the visual standards did not realize he had trouble but the professionally-adjusted record sheet indicated he was refracted and did have trouble. The trouble was corrected, and he came back to management and said, "You know when I used to go home to my wife I wouldn't go anywhere at night. I couldn't go to the movies. I had a headache; I was tired; I was tense; I was griping all the time; I wouldn't go out to see people. Now I can, since I had my glasses." The reason for his trouble was the terrific effort he made on the job. He did top work, and he used up everything he had in nervous tension, so that by the time he reached home he didn't have anything left.

Your record provides information necessary to direct people into proper channels for correction; without it, you are in a haze; you don't know. Your corrective program is actually the greatest contribution, with one exception, made by the visual testing program in your type of industry. The exception is the dollars-and-cents value to industry where

## Good Eyesight Pays Off

The use of visual training programs, improved lighting and corrective aids such as glasses in American industry have not only improved workers' eyesight but have resulted in increased efficiency and production, according to the Better Vision Institute. Despite great progress in improving and safeguarding workers' eyes, however, there is still much to be desired. The vision of hundreds of thousands of American workers is still below standard, and about 1,000 eye injuries are still sustained daily in American industry.

Statistics gathered by the U. S. Public Health Bureau on the eyes of 1,000,000 persons showed that one-fifth of those in the 17-18 year of age group had visual problems, 39 per cent of those at the age of 30, 71 per cent of those at 50, and four-fifths of those at 60. Many such persons, naturally, find their way into industry.

It is believed that the demonstrated dollars-and-cents value of eye-care, as well as moral and humanitarian considerations, ultimately will result in the highest eye-efficiency level in the world for American workers and that ever-increasing safeguards will reduce eye accidents in industry to an irreducible minimum.

# No Other Roving Can Will Give Better Service



That is an understatement, as you will discover when you get your first Silver King Roving Cans. Actually the Silver King has features which no other roving can has to offer — features which make the Silver King last far longer, stay in better condition at all times, and decrease handling costs.

The Silver King is made of tough Vulcanized Fibre. Here are its advantages.

- **Light in Weight**

About ½ the weight of aluminum.

- **Extremely Strong**

One of the strongest materials per unit weight known.

- **Extremely Tough**

Can take sudden repeated shocks and impacts.

- **Resilient**

Springs back into shape when subjected to sudden shocks.

- **Resists Abrasion**

Will not scuff, rub, or wear off.

- **Non-Absorbent**

Will not absorb oils, gasoline, or most solvents.

- **Costs Less**

Prices on the 12" x 36" vulcanized fibre Silver King Roving Can shown here are as follows:  
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|                          |                      |
|--------------------------|----------------------|
| Small lots . . . . .     | \$3.70 each          |
| 500-800 cans . . . . .   | \$3.70 each less 5%  |
| Over 800 cans (carloads) | \$3.70 each less 10% |

## The Silver King Roving Can

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*South Carolina*

**RALPH GOSSETT**

15 Augusta St., Greenville, S. C.

# GETTING THE MOST FROM TWISTING

Information about twisting designed to show improvements in twisting equipment and new ideas in the twisting operation



Fig. 1. Feed Roll Assembly.

## NEW DEVELOPMENTS IN ATWOOD MODEL 10 RING TWISTER

Among the improvements that have been made in The Atwood Model 10 Ring Twister to increase efficiency are the following:

### 1. Feed Roll Assembly

Wear on the plunger cable has been reduced by means of an improved type of connection between the cable and the stud (A) on the intermediate gear lever. The Stakon clamp (B) which is now used, pivots on the stud when the plunger cable is in motion; this eliminates crimping of the cable at C and results in longer cable life.

Positive stopping action has been further insured by a redesign of the latch lever. This part is now bent over at the top and has a hole (D) to hold the trip wire in

its proper operating position. Whenever an end breaks or a runout occurs, the trip wire falls directly between the latch knock-off cam and the feed roll latch lever, producing a positive stopping action.

To facilitate threading and tying knots in single ends, the eye in the feed roll thread guide (E) has been redesigned so that the yarn can be quickly and easily slipped into the thread guide. The auxiliary stop motion lever (F) has been given an oilless-bushed fibre roll positioned on the left-hand side of the feed roll housing. Both of these parts are attached to the feed roll housing by separate screws. In the rearrangement of parts, the operator has been given more freedom of hand movement while threading the yarn around the feed roll.

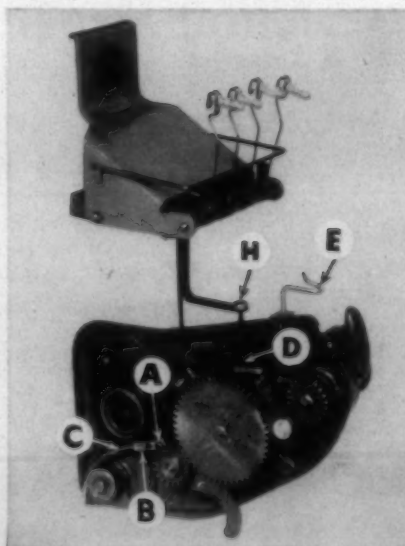


Fig. 2. Feed Roll Assembly with cover removed.

The knock-off motion has also been improved by making the trip wire connection from a metal stamping to provide a rigid mounting. A projection (G) contacts the feed roll housing when the trip wire has reached the contact point between the knock-off cam and the latch lever; this prevents the trip wire from dropping too far into the housing. The trip wire is screwed into the connection and is held firmly in place by the lock nut (H). A vertical adjustment of the trip wire can be made by loosening this nut and turning the wire in the connection.

### 2. Builder Lever Straight Bobbin Builder Motion

The design of the builder lever of the straight bobbin builder motion has been changed slightly to protect against any possibility of an excess of oil overflowing when the lever is depressed by the action of the cam.

The front wall has been altered so that it now tapers gradually downwards from both ends of the reservoir toward the center. The top of the wall at center is just slightly above the center of the cam roll. By keeping the oil level at the center of the cam roll, it becomes impossible to flood the reservoir to such an extent that the oil will overflow when the lever is depressed below the horizontal.

To help maintain the proper condition, the words, "Oil level to center of roll" are molded into the casting.

See pages on Universal and Atwood Machinery in TEXTILE CATALOGS AND DAVISON'S

\*Reg. U.S. Pat. Off.

23-8-5



WINDING AND TWISTING MACHINERY FOR NATURAL AND SYNTHETIC YARNS

# UNIVERSAL WINDING COMPANY

INCLUDING ATWOOD DIVISION

PROVIDENCE BOSTON PHILADELPHIA UTICA CHARLOTTE ATLANTA CHICAGO LOS ANGELES MONTREAL and HAMILTON



expensive and lengthy apprenticeship training is necessary. Four or five years' training of a man who is going into the color department, or the fine quality departments of a printing industry, for instance, is expensive if you find out, after his third year, that you have to wash him out.

Now for a few more problems. Companies often do not visualize the tangible returns in dollars and cents unless presented with reported experiences and cold facts, of which there are now many available. Secondly, management often has a complete lack of understanding of what constitutes a modern program of industrial medicine. They feel that it should be curative, first aid—take care of the fellow who has fallen into the acid bath. Actually, it is preventive, and this visual program forms part of it.

The contention that a visual program is applicable only to certain types of jobs and operations is a fallacy and an assumption. It is already known that accident correlations are difficult. You can't use those as your first criteria. There are too many things that enter into that picture. The careful experiments in California on traffic accidents, where they got all through and found there were no correlations is an instance of this. Somebody said, "Well, did anybody make a record on which eye was bad, and which side the fellow was hit from?" No, they didn't. It threw the whole thing out. You can't have a correlation with vision unless you have all of the facts.

Again, the assumption that near vision means 14 inches or less, and that work done farther away does not belong in the category of visual problems is fallacious. Your greatest problem, especially among men from 40 up, are with the people who work at arm's length. Your problem comes in when they are wearing bifocals.

An ophthalmologist, who is consultant to a textile plant in New England, said that was the greatest problem he had to solve. The only way he could solve it was by putting the

near correction in one eye, at arm's length, and the distance correction in the other eye; and he was wondering whether that was medically correct or doing any damage. I told him that if you have a man whose bread and butter is dependent on his job and by giving him a pair of glasses you make it possible for him to hold his job, if he is comfortable doing it he can wear his regular glasses when he goes home and has no complaints, that is proof that he has found the solution to that problem. So, your arm's-length difficulties that have been brushed off by many textile people are, in many instances, the spot in which there is trouble.

Very often you have a lack of realization of what muscle imbalance and stereopsis are for near vision. You figure it applies only to the fellow who is operating a crane or a truck or something like that, but you try to thread something through a hole and your eyes won't line up, and it gets fuzzy because of that and nothing else. Near muscle imbalances and depth perception for close application are important in the picture.

One of the main reasons for this unawareness is that the lay staff are unable—not through intent but through lack of training—to recognize this. In order to tie that up, you should bring your consultant into the plant; and take him through all the job operations from A to Z. Then take him out and play the 19th hole with him. You will really have a program as a result.

The nearsighted person who has never worn glasses who is told that he must wear them all the time for close work (eight inches) really goes into a tailspin. So, that plant, instead of being better off, was worse off, and it was because they neither asked the doctor nor did the doctor offer to go into this problem to see what they were doing.

The foregoing paper is abstracted from remarks presented last October before the textile section of the National Safety Council held at Chicago, Ill. Dr. Kuhn, of Hammond, Ind., is secretary of the Joint Committee on Industrial Ophthalmology.

## *Opening, Picking, Carding & Spinning*

# Practical Applications Of Anti-Friction Bearings

By STANLEY BERG

**T**WENTY-THREE years ago I came to the Carolinas. At that time most ball-bearing applications had been on beater shafts and to the fan shafts of pickers. Apron conveyors had also been equipped with anti-friction bearings. Other bearing locations on the picker were not considered important enough to apply anti-friction bearings, as most of us considered the advantages in the way of power savings to be small. We did give some consideration to lower maintenance cost, but at that time it did not seem as important as it is today. We put forth most of our effort on applications to beaters and fans of pickers, as well as eveners cones and the entire eveners motion, as we found a much eveners lap was produced when we reduced the friction.

Back in 1926 we had also made a good start in equipping the cylinders of spinning frames. At this application, however, many of the mills had tried anti-friction bearings with disappointment, as not enough attention was focused on the importance of a proper fit to the shaft or of proper housing mounting of the ball bearing itself. This mistake brought about bearing failures, and it cost a lot of time and money to correct the wrong applications that had been made. At one time it appeared that we might have to step out of the textile industry, as trouble developed on all sides. But it takes trouble to bring out quality; it takes hardship to see what backing you have; it takes real effort in the face of trouble to demonstrate that the fundamental principles were right even though other mistakes were made. My

#### OPENING, PICKING, CARDING & SPINNING

sales manager at that time made the statement to me: "Stan, we are going to put in the best we have got, and if that does not stand up we'll step out of the field." But, it took just that to do the job. It took the best we had and the best kind of application we could make with the best type of housing large enough to provide for the action of lubricant under changing temperatures. Thus were developed dependable anti-friction bearings for use in the textile industry; and in the last 20 years it has been more than proven that, if the job is done right, you may expect trouble-free operation.

I do not want to try to prove to you that anti-friction bearings are the correct type of bearings to apply to your equipment. That has been proven. I merely want to bring to your attention some of the practical things that have done so much for this anti-friction-bearing development in the textile industry.

To show how some of the important applications have been developed, even though they may seem to be small, I should like to tell you about the Pitman roll application on the spinning frame. While we were making some installations in one of the larger textile mills in eastern North Carolina the superintendent questioned me as to what we had to offer for the Pitman roll of a spinning frame. I did not know then what a Pitman roll was and requested to be given one of the old rolls, which I mailed to the factory. At first the factory stated that the roll was so small that a ball bearing could not be mounted in it, but later they mailed me a special cam roll that they had developed for automatic tin-can machinery. As soon as I received the roll I mailed it to the cotton mill where the inquiry had been made and later went to that mill to see if it would work. When I questioned the mill people about it they said: "That's the cat's whiskers." Since that time many thousands of these applications have been sold, making possible uniform operation of the side rails; and that, of course, developed an even bobbin.

In the same way many other anti-friction bearing applications have been made. We can not say that the bearing

representative was the one who did the work; in most cases it was the mill man who wanted the work done, and the bearing man just used his knowledge of bearings and offered something to do the job. Just to have a bearing is not all, because the bearing must be mounted in a housing that may be used in connection with the textile overseer's problem. Sometimes these special housings are costly, but when the bearing accomplishes smoother operation it is well received.

Back in 1926, when I came to the Carolinas, while I had previously worked among the woolen mills I had actually had very little experience in cotton textiles. The only way in which I could get this experience, so as to know the value of anti-friction bearings or so that I might tell others of their value, was, necessarily, to make many tests; and we worked constantly with Esterline graphic meters, comparing plain bearing load requirements with those of anti-friction bearings. In the spinning room, in many cases, we found that the anti-friction bearing would pay for itself within two years. On other applications, such as line shafting, it took longer. But wherever they were applied they proved themselves a very important factor in keeping down cost.

While anti-friction bearings have many other advantages, for a long time it was necessary to prove their value in power tests. One of the other most important advantages, more appreciated today than it has been in the past, is in the matter of cleanliness. A ball bearing application, properly mounted, needs very little attention; and it makes possible a lesser load on the motor, which brings about uniform speed and more production.

From among the many designs offered today it is not difficult to get a standard application that will fit almost any machine, from the opening room all the way through the mill, and on through the finishing mill. During the last few years many thousands of these applications have been made, and the modern mill today expects and gets the lowest power cost possible along with the highest possible production. Also, textile executives realize the importance of cleanliness more today than ever before; and, where formerly there was loss of product on account of oil spots, much of this has been done away with by application either of a ball bearing that needs little attention or of one that needs no attention at all.

As I stated previously, anti-friction bearings do not need any introduction to the wide-awake textile executive. He appreciates their value. He has found that they are necessary. They are no longer gadgets; they are part of the necessary structure of the textile machine itself. New machinery, whether in the textile field or outside it, is almost everywhere coming out with anti-friction bearings. From the smallest, simplest, lightest loads to the heaviest, most complicated parts of machinery you will find that anti-friction bearings are holding down costs, making larger production possible, and also avoiding loss of goods by oil spots. On many applications where the power requirement is negligible we find that the ball bearing is a necessity because of cleanliness.

There ought to be considered, also, the importance of the correct structure itself of the bearing to be applied, its aligning features, and its simplicity of application. Many anti-friction bearings have been allowed short life by having been applied too tight in the housing or on the shaft;





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in the same way, if the bearing is applied too loosely in the housing or on the shaft it will peel out the surface on which it is mounted, so that there will be a pounding action which shortens the life of the bearing.

The lubricant is also an important part of the satisfactory operation of an anti-friction bearing. For most cases, the lubricant should have the consistency of vaseline and should be of a high melting point, to avoid separation when the housing is filled with lubricant under the temperatures prevailing in the textile mills.

As in other fields of industry, we also find in the textile field that anti-friction bearing units of inferior construction and design are offered; and sometimes they do not give satisfactory service. When this condition develops it is advisable to call in your bearing man and let him check the matter and see where a correction should be made, because a well-made anti-friction bearing, properly applied and properly maintained, should give unlimited service without trouble. If there is trouble it may be traced to a definite cause. Most of our difficulties are caused by neglect or ignorance. If they are not remedied they may be very costly; but if corrected they can often teach us an important lesson, so that we may avoid getting into similar trouble on some more important applications.

We should keep in mind that the heavier the load the more the friction. Therefore, the heavier the load the more the friction can be reduced with anti-friction bearings. On high speeds it is considered an absolute necessity to apply an anti-friction bearing, not only to provide for the load but also to provide for the lubricant. On slow speed, also, we now understand that the anti-friction bearing has an important place, because it not only holds the power requirement to a minimum but also seals in the lubricant to prevent leakage and avoid over-lubrication.

Many thousands of anti-friction bearing applications have been made, but there are still many thousands more to be made. This can best be done by co-operation between the mill man and the bearing representative. Co-operation has brought us to where we are in this industry; and, seeing the strides that have been made in the last 20 years, we look forward with pleasure to what must happen during the next ten years.

Mr. Berg, in charge of the Fafnir Bearing Co. office at Charlotte, N. C., delivered his paper before the South Carolina Division of the Southern Textile Association when it met March 5 at Greenville.

## Plan Color Film To Show Spinning System

Plans for a full color sound film to show each step in the new French-American system for spinning fine worsted yarns at the Delaine Worsted Mills were made known Feb. 28 by Milton E. Tager, president of Associated Spinners, Inc., Gastonia, N. C., of which the Delaine mill is a subsidiary. The Delaine system is a modification of the American system designed to produce even yarns from French-combed wool tops. Shooting of the film will begin immediately. As far as is known, this will mark the first attempt ever made to inform the trade about a new spinning system by use of movie film. The idea of a film was conceived to circulate correct information to yarn users who have sometimes erroneously classed the new system as a "cotton system" of spinning. The Delaine plant was de-

signed for fine Zephyr worsted wools only, and is unable to spin cotton fiber. The step marks the first effort in a planned series of "public information" programs to acquaint the textile industry with the latest developments in worsted yarn spinning. In addition to the film a series of descriptive articles including still photos of key processes will be distributed.

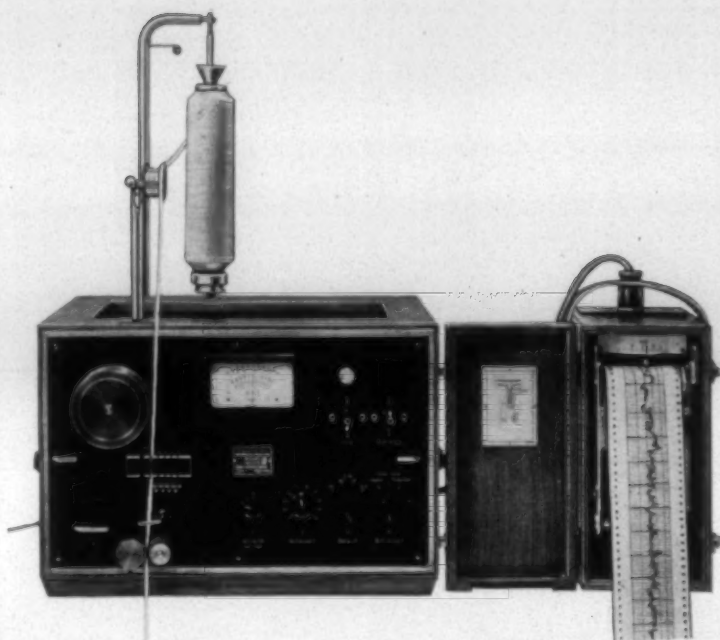
It is planned to show the film to knitters, weavers, textile schools and buyers of wool textiles. Different prints of the film with separate voice commentaries will be made to explain each process in language suitable to the audience, the more technical explanations being confined to textile technologists while wool and worsted buyers will be shown and told how spinning technique affects their price plans and the quality of the products they sell. All the different steps in the processing of wool including spinning and examining will be explained and the modern methods used in each process will be highlighted. The plant has recently been assembled and while there has been much interest in textile circles about the process, few have actually seen a plant of this type in operation. Prints of the film will be made available for free showing at schools, conventions and sales meetings.

## Produce Worsted Yarn With Nylon Core

Commercial production of Nyspun, a new worsted yarn with nylon core, has been started at the Whitnel, N. C., plant of Spun Fibers, Inc. Developed by E. H. Timanus, general manager, after two years of experimenting, Nyspun consists of a filament nylon core plaited with wool. In initial production 20-denier nylon was used but lately yarns have been made with 50-denier, which Mr. Timanus says "gives more stability to the yarn." The new yarn is being manufactured into sports shirts, slacks, suitings, men's hosiery and misses' anklets and has attracted the attention of Army Quartermaster Corps authorities who are conducting experiments with Nyspun in the production of shirtings. Shrinkage tests conducted by a leading concern produced the following results:

After the first washing, Nyspun fabric showed 2.7 per cent shrinkage in the warp, compared with 2.9 per cent in the worsted fabric. Both gained 1.3 per cent in the filling. Following the fifth washing, shrinkage of Nyspun was 3.6 per cent, as contrasted to 5.6 per cent in the worsted, with Nyspun gaining 1.7 per cent in the filling, against 0.7 per cent. Another test disclosed that during steam treatment, fabrics of the new yarn under five-pound pressure lost 1.9 per cent in the warp while gaining 0.7 per cent in the filling. After 15-pound pressure, warp shrinkage was 1.5 per cent and filling gain was 1.3 per cent.

Comparative tests of worsted-and-nylon blends treated by a shrink-resistant process and Nyspun fabrics showed: After sponging, Nyspun had 0.2 per cent shrinkage in the warp and 1.3 per cent gain in the filling. After laundering there was neither shrinkage nor gain, it was said. Of the blended fabrics tested, those with ten per cent nylon lost 0.5 per cent in the warp and gained the same amount in the filling following sponging. The warp had one per cent shrinkage, with no gain in the filling, after laundering. Fabric containing 20 per cent nylon had a one per cent gain in the filling after sponging and a 1.2 per cent shrinkage in the warp after laundering.



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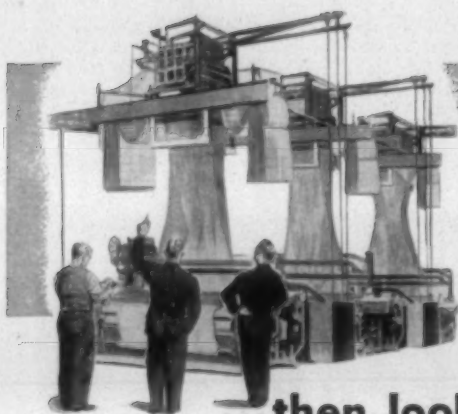
The performance of each production machine and department, from carding through finished yarns, can be recorded accurately and continuously with the Uster Tester. The most minute variations in cross section and density are indicated. The same piece of material can be tested quickly and without distortion as it passes from one process to another. Thus, production variables are localized and may be eliminated by making adjustments at the cards, combers, drawing, roving or spinning frames as indicated to produce the exact quality wanted.

Turn the spotlight on your machinery and methods with this invaluable instrument. Every yarn making mill needs one. Unprecedented quality control is made simple and practical with the Uster Eveness Tester.

### For Sliver — Roving — Yarn

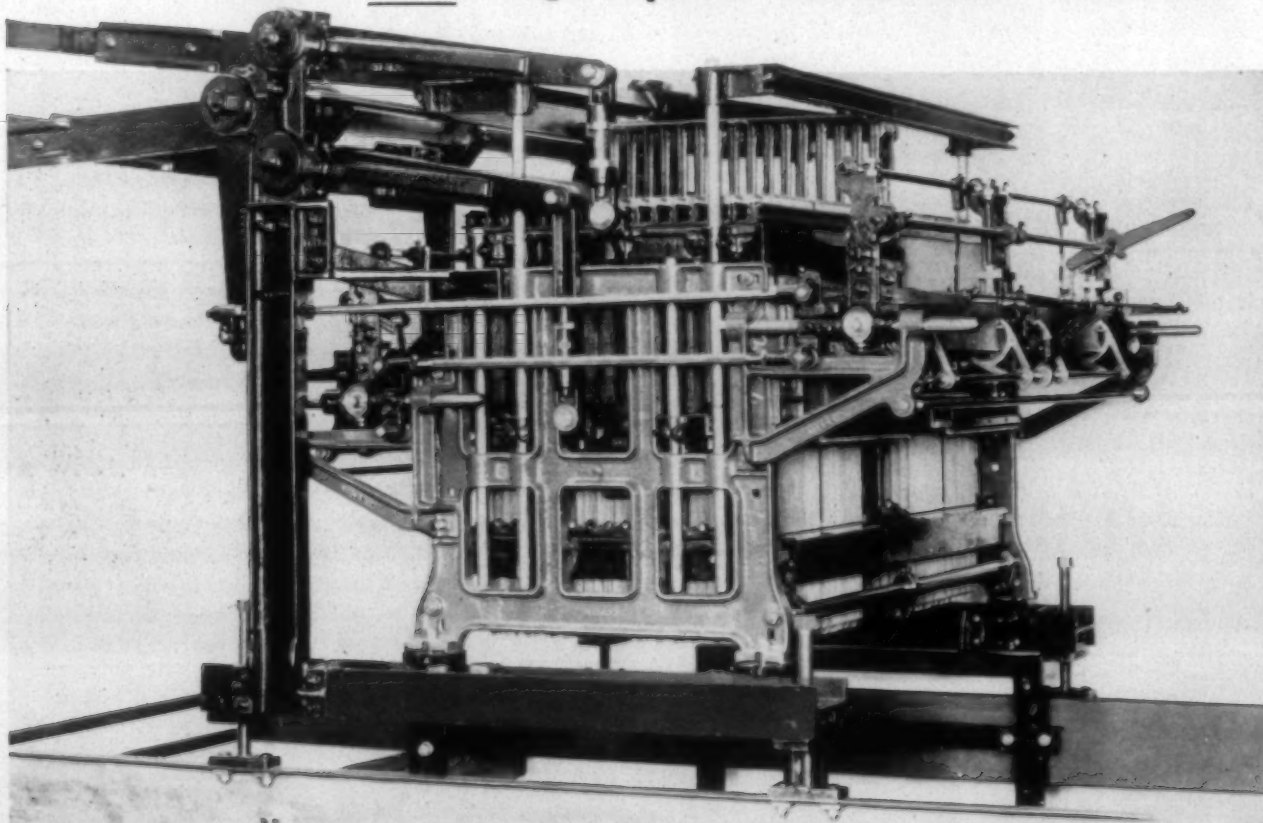
Measures and records the unevenness in cross section and density of sliver, roving and yarn. Capable of handling material varying in weights from 350 grains per yard to 150's cotton. Material undergoes no compression or distortion and may be tested repeatedly with identical results. Four material feed rates are provided with three chart speeds and four chart scales. Charts can be read directly in percentage of variations or the Planimeter method of evaluation may be used. Operation is simple and rapid. An expert is not needed to interpret and use the findings of this accurate and invaluable instrument.

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This new C&K Jacquard—the only double-cylinder machine with independent cylinder drive—opens up new profit-opportunities in the production of new and more elaborate designs in upholsteries, draperies, table damask, bedspreads, terry

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# Warp Preparation & Weaving

## Electronic Instruments In Textile Manufacturing

By KARL SELDEN, JR.

THE title of this paper may be somewhat misleading, for I do not propose to discuss all of the instruments or devices utilizing "electronics" which are currently being employed by the textile industry. I shall, rather, limit my remarks to those instruments and controls which are commonly being used for the measurement and control of temperature, humidity, pressure and flow. Furthermore, I should prefer, in a way, to de-emphasize the term "electronics," because there is probably no term in common usage which has been more widely exploited, misused, abused, or applied incorrectly. For example, I cite the current advertisements of one of the large radio manufacturers, who refers to his "electronic" television sets! And it is not hard to find parallel absurdities in the literature of the scientific instrument manufacturers.

To bring this subject into proper focus I should like to discuss for a moment what is really meant or implied when the word "electronic" is attached to an instrument or a control device used in connection with the measurement of one of the aforementioned variables. Prior to the development of vacuum, or so-called "radio," tubes suitable for industrial use the most sensitive and accurate temperature-measuring instrument was the self-balancing mechanical potentiometer or resistance thermometer. The operating principle of this type of instrument might be compared to a scale on which the quantity to be weighed is balanced by a known number of weights. In the mechanical potentiometer the unknown quantity is the E. M. F., or voltage generated by a thermocouple; and this E. M. F. is then "balanced" by a known electrical quantity, usually one volt, through a simple electrical bridge circuit. However, balancing the bridge in this type of instrument is complicated mechanically, and such instruments are subject to many maintenance and operating difficulties. The measuring accuracy of these instruments is fairly good; but their sensitivity is usually limited to something on the order of one part in 200 to 400, or less.

On the other hand, an instrument which, through the use of vacuum tubes, balances the unknown quantity against a known quantity merely by operating a small reversing motor becomes quite simple mechanically and can be made with inherently high accuracy and sensitivity. There are commercially available such instruments having sensitivities as high as one part in 3,200, or, in other words, eight to 16 times more sensitive than the mechanical potentiometer. And therein lies the outstanding advantage of an "electronic" instrument. It can be seen from the foregoing brief discussion why the instrument manufacturers have devoted much time and money to the development of instruments utilizing "electronics" for measurement and control.

Now, what does all of this mean to textile manufacturing

processes? Simply this: That it is now possible and practicable to measure continuously such things as regain in yarn and cloth; pH in water and chemical solutions; concentrations of chemical solutions; dry-bulb, wet-bulb, and dew-point temperature; relative humidity; flow; and pressure—all with a degree of sensitivity and accuracy previously unobtainable. Furthermore, it is now possible to make some measurements which were unobtainable on a continuous basis. And it is axiomatic that, if a measurement of a variable can be made, then automatic control of the variables is possible.

The first large-scale use in the textile industry of instruments having vacuum tubes and electronic circuits was for control of regain in warp yarns during the slashing process. This instrument is too well known to warrant discussion here. It might be well, however, to review briefly the instrumentation required for a complete automatically-controlled slasher room.

When it comes to the proper mixing and proper cooking of size there is no agreement among textile people, so far as I know, about the best methods to be used to get proper results. In my experience I have had occasion to ask a great many people what they think is the best cycle of operation, and I think if I should ask a hundred people I might get a hundred different answers. But fundamentally all plants do it in much the same way. The cooking vessels are usually equipped with a temperature control of some kind, and associated with that temperature control will be either a cam-operated control device or a simple timer. The choice of the type of equipment used is purely a matter of opinion. The great majority of the cotton size cooking installations, however, do use the cam-operated type of control because with that type it is possible to regulate the rate at which the solution is brought up to the cooking temperature and then held for any given length of time desired. With the so-called elapsed-time type of control system it is not easily possible to regulate the rate of temperature rise. It can be done, but it is more complicated and more expensive. So, as a consequence, the cam-operated type of control system is more frequently used; and it is the more flexible type.

After the size solution is properly cooked it is usually pumped into a storage tank, where it is held at some fixed temperature until it is to be used in the size boxes. The holding temperature will depend on a number of factors and probably is not too critical, anyway. The only important thing to do is to be sure that the size solution is not allowed to drop in temperature to the point where it congeals or gelatinizes.

It has been found that the level in the size box should be kept to some optimum point and held closely, because a varying level in the size box results in a varying quantity of

## WARP PREPARATION & WEAVING

size on the yarn, by virtue of the fact that the lower the level the shorter the length of time the yarn is actually in the size solution and the harder it is for the yarn to pick up size and bring it up to the squeeze roll. If the level is too high there is danger of trouble due to not being able to squeeze out enough to bring the pick-up down to the ten, 11 or 12 per cent or whatever it is you want. It has also been discovered that the size box level can have quite an effect on the final regain of the warp yarn. I will touch on that in a few minutes.

Were it not for the fact that the size solution contains a lot of water the application would be quite simple. But since it does contain water the yarn has to be dried, and currently the driers used are of the cylinder type. Obviously, for uniform drying the cylinders should be kept at a uniform temperature. That is quite simple to do, particularly with cotton yarns. The most commonly used type of cylinder-temperature control is a pressure control. It is a simple instrument; it is an inexpensive instrument; and it comes as near to being a foolproof temperature control device as you can have. It maintains the steam at a constant pressure and thus maintains the cylinder at a constant temperature.

As to actual regain control, the so-called moisture meters or regain controllers or whatnot are today accepted by industry, and there is something in the neighborhood of 800 of those instruments in everyday operation. That is an electronic instrument.

The measurement of yarn regain on the slasher fundamentally is quite simple to make. Actually, all the instrument does is to measure the resistance to current flow through the yarn. Since the resistance of the yarn varies as the moisture content, it is possible and has been proved practicable to calibrate such an instrument in terms of regain or percentage of moisture. The big problem in the application of that kind of instrument as an automatic control came in the solution of what form the control should take. Attempts were made to have the moisture control instrument regulate and adjust the drying capacity of the slasher by changing the cylinder pressure. Such attempts were not successful for a number of reasons, the two principal ones being, first, lack of sensitivity in the measuring instrument and, second, the lag in response of the cylinders to a change in steam pressure or temperature. That lag is due to the tremendous amount of heat stored in the metal of those cylinders. In the cotton textile slashers, particularly, you have a seven-foot and a five-foot cylinder, or sometimes two seven-foot cylinders. There is a tremendous amount of heat stored in those cylinders, and before the drying capacity can be changed that heat has to be dissipated.

In recent months much progress has been made by at least one of the instrument manufacturers in a moisture control apparatus. An instrument is now available which has a measuring sensitivity of the sort previously mentioned of up to 200, and which is extremely fast in its response to variation. As a result of improvements in the measuring system and in the speed of operation of this instrument there is some definite indication now that the problem of speed regulation or moisture control of warps in the slashing operation will be simplified to the point where it may be found practicable to eliminate the complicated and very expensive variable-speed drives. I do not mean by that to imply that the variable-speed drives will ever be entirely

eliminated, because you will continue to need some instrument to regulate the speed of the slasher to the varying warps that are being run. But if a way can be found to regulate the moisture content of warps without varying the speed of the slasher from minute to minute several things will have been accomplished. In the first place, there can be determined the optimum maximum operating speed, and your controls can be set to that speed; and you will therefore get 100 per cent efficiency out of your slasher. Let's put it that way. With the presently used slasher control system the speed varies, and unfortunately your slasher runs most of the time on the low side of the speed range that you desire and not on the high side. Consequently you lose production. It may not be serious; it may not be a real problem because of the small amount of speed reduction that takes place. If it is a matter of four or five yards a minute, however, and you multiply that by the number of minutes you operate during the year, it does run up to a considerable amount. So this control will make for better production methods on the slasher. So much for the slasher room.

Several years ago certain consulting engineers questioned the temperature and humidity tolerances being permitted by mill managements of air conditioning contractors. It was not unusual for installations to be accepted by the managements which were guaranteed to hold the temperature within four degrees and the humidity within five per cent plus or minus some set point. These engineers rightly reasoned that if it was necessary to have controlled conditions in the mills then it was reasonable to expect that much closer conditions could and should be held than had been allowed or tolerated, at only slight, if any, additional cost. The problems were presented to the air conditioning contractors and automatic control engineers, and through mutual co-operation solutions were arrived at. No small part of the credit should go to the automatic control people, for they have developed control systems which are capable of holding conditions well within any prescribed limits.

I rather suspect that very few people in management positions in the textile industry consider their air conditioning installations as a part of their process or consider the air conditioning or humidifying systems as problems in process control. When you stop to consider the fact that many mills today cannot operate a twister room or a spinning room without air conditioning, it is easy to realize how important the air conditioning is to your actual process. Since that is the case, some of us have come to look on air conditioning and to treat air conditioning as a process control problem.

Strangely enough, when textile air conditioning was used in that way, all of the thinking about the automatic control of the air conditioning got turned around; and the automatic control people, along with the air conditioning engineers, found themselves in a somewhat embarrassing spot because for many years they had sold equipment guaranteed to produce certain results and, frankly, in many, many cases they had a time doing it. When they stopped to size up the situation they realized that the reason they had had so much difficulty and the reason that they could not go to a mill owner and say: "We will install an air conditioning system and guarantee it to hold the humidity within two per cent plus or minus and to hold the temperature to within one degree plus or minus" was because they had not used the type of equipment—and particularly of control equipment—



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## WARP PREPARATION & WEAVING

necessary to produce that result. The problem was discussed with all of the instrument and automatic control people, and finally it was agreed that there was no use any longer in trying to have a boy do a man's job. In other words, what was being done was that control instruments devised for restaurants, office buildings, schoolhouses, etc., were being used in industrial installations; and they just would not work. Today when you specify air conditioning equipment for your mill and tell your contractors that you want the temperature and humidity held within a very close range they will accept the responsibility, because they know that the equipment to produce these results is available at reasonable prices, is dependable, can be easily maintained by mill personnel with just a little bit of training, and the investment in the installation more readily is justified because it produces results.

One of the reasons why it has been possible for the control manufacturers and the air conditioning manufacturers to assure more rigid guaranties is that electronic temperature and humidity instruments are available within the sensitivity previously mentioned, as well as refined control mechanisms which are capable of recognizing very small changes in room conditions and doing something about them before it is too late.

I am able to tell you that within recent days the first practical and successful remote relative humidity recording system has been placed in operation. It is a system whereby a recording instrument can be remotely located from the point of measurement and continuously record relative humidity accurately. Furthermore, this instrument can measure as many as eight relative humidity control stations and eight temperature control stations simultaneously and print the measurements on a chart, and the instrument can be located a mile or two from the rooms in which the measurements are being taken. What that is going to lead to no one knows yet, but the point is that the instrument manufacturers have now achieved something which has been striven for for a great many years, and it has been possible to do it only through the use of electronic instruments.

It is thought that with the new relative humidity measuring devices which are now coming on the market it will be possible to guarantee to hold relative humidities in weave rooms, for example, well within one per cent plus or minus a set point. That is quite a step forward, because it was only three or four years ago when it was extremely difficult to hold relative humidities within three per cent plus or minus in weave rooms.

Mr. Selden is assistant manager and chief engineer for the Textile Shops at Spartanburg, S. C. His remarks were made March 5 at Greenville during the Spring meeting of the South Carolina Division, S. T. A.

The Department of Commerce has launched what is believed to be the first step in a broad research project in the industrial fabrics industry, it is reported. Conducted by the textiles and leather division of the Office of Domestic Commerce, a preliminary study seeks to gather detailed information on types and quantities of fabrics used in the production of canvas products and if expected returns on this study prove of help to duck producers it is believed that surveys will be extended to other segments of the industrial fabrics trade.

## A Rug Style Is Born

A FINISHED CARPET represents months of painstaking work by artists, designers, colorists and scores of others responsible for yarn spinning and weaving. Below, the design inspiration for a new swirl-textured Beauvais is derived from a bouquet of leaves. Here the artist sketches the design in charcoal. Each square represents one tuft in the finished carpet.

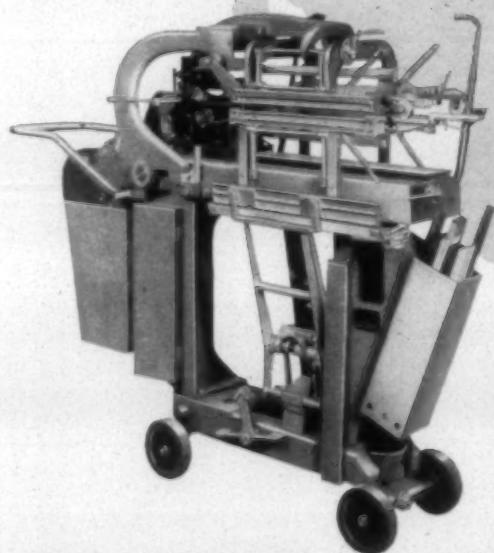


Above, color is added. Each square is colored separately to show how each tuft of the carpet will carry out the design. Below, has the design been followed faithfully? The first sample off the loom is checked. The colors are true, and the reproduction of the design accurate. The sample now is submitted to a series of laboratory tests before it finally is approved and entered on the weave room schedule.—Photos from Bigelow-Sanford Carpet Co., Thompsonville, Conn.



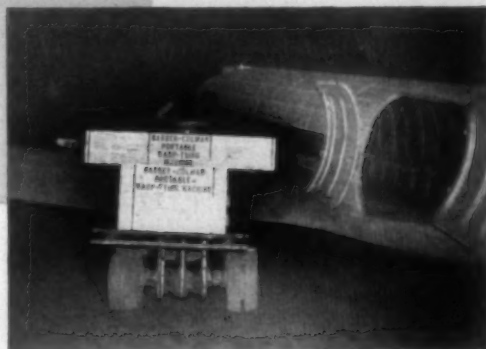
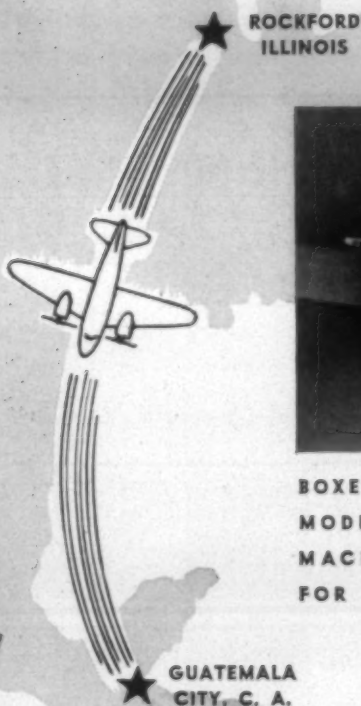
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# Materials Handling

## The Materials Handling Engineer

By T. L. CARTER, Materials Handling Engineer, American Cyanamid Co.

**D**ID you ever try to hire a materials handling engineer? If you didn't you should try it some time, it is a remarkable experience. Just put a small ad in the local newspaper, "Wanted: A Materials Handling Engineer" and sit back and wait. You will get everything from steam locomotive engineers to warehouse foremen, from fork truck operators to traffic managers, from production superintendents to methods men. But best of all, you will get an idea of how many different interpretations can be given the title *materials handling engineer*.

Titles are remarkable things and may be had a number of ways. If you get far enough away from home you may assume one (wouldn't it be disappointing to find yourself cruising along about 10,000 feet altitude with a pilot who had merely assumed his title). If you do a favor for a king you may find one conferred upon you. I think the title which I would consider most complimentary would be that one quietly acknowledged by those friends and associates who were themselves well qualified to use it. I say again, it is remarkable the variations in conceptions of what a materials handling engineer is. A friend of mine is thoroughly convinced that he would be wastefully ineffective in any other division than traffic.

At a recent important materials handling meeting, I was very much surprised to find one of our major companies represented only by their purchasing department. I believe that the most common of all is the assumption that all salesmen of certain types of equipment are materials handling engineers.

There is still another approach—the assignment of some member of the engineering or drafting department to handle occasional problems of materials handling when they arise. Very often this is a junior member in a training period. It hasn't been too long ago that a friend of mine, one of the most capable engineers I know, told me that he had assigned just such a man to handle materials handling in his business and asked me to recommend a good text on the subject. Then, of course, there are those who simply discovered that they were natural born materials handling engineers. They had a knack for gadgets—they knew what a fork truck was, and a conveyor, and they knew they needed some.

You see, these few simple words which are going to describe this title begin to get involved as you look into the matter. And the more people you ask the more confused the issue becomes. What really is a materials handling engineer? Well, before we can answer that one, what really is materials handling? You can make of it whatever you want—you can limit the job to the selection of fork trucks for your warehouse, or you can unlimit it to one of your

most important executive positions, concerned with every phase of your business. But not until you have decided what the job is to be can you set up the qualifications for the man who is to hold the title.

Materials handling does not come as a single package, but rather consists of a lot of things. Materials handling is not like an apple which ripens naturally and can be had by the mere plucking from the tree—it is more like a smoothly functioning machine made up of a number of co-ordinated parts—fail to include anyone of these parts in the design, and though the machine itself may still run, you will find yourself riding in a Jeep when what you thought you had was a Cadillac. Let us consider, then, some of those items which must be included in the *complete materials handling picture*.

Right at the top of the list I would put plenty of *experience*, varied experience, in *engineering*. Not only must our man be qualified by education, but by practical experience, and the more varied his practical experience, the more valuable will he be in the job. His know-how wants to have come from doing, not from having read a book or watched somebody else. Let him have been responsible for maintenance and he will know the importance of maintenance in his planning. Let him have actually designed and erected some structures before he begins to cut holes, and take on floor loads, or compare one-story constructions with those of multi-story design. Let him have designed and built and operated a few machines, or conveyors, before he attempts to write specifications for others, or compare the advantages of various designs. Let him from experience know when mechanization is practical and when it has gotten beyond practical limits. Let him have the ability to devise new equipment, but let him know by experience that the use of commercial equipment usually pays off best and fastest. We want a man who knows how to get in there and get the facts, and when he's gotten them, knows how to analyze and compare and use them for what they are worth.

Next in importance to engineering ability I would put his knowledge of *equipment* available. He must be up to date in this capacity, or he cannot do justice to the job. It is not necessary for him to know manufacturers' names (he can get those out of any good directory), but it is very necessary for him to know all the fundamental types and kinds of equipment, what they are intended for, how they operate, and what they are capable of doing. It would be impossible for me to list them here for you; I have heard well-qualified men attempt to cover conveyors alone, and they had not even listed all the types, after hours of discussion. Mobile equipment—trucks, and tractors, and trailers, and all the other accessories would be just as difficult to

## MATERIALS HANDLING

list. Bulk handling equipment may or may not be included in these two major fields. The many variations in types of storage systems—racks, bins, hoppers, tanks—all are fundamental equipment and need to be well chosen for the most gain.

There is rarely a problem that there are not several answers. If our materials handling engineer is aware of only half the possible methods, then he has only a 50 per cent chance of finding the best possible answer. Not only is our man going to need to read the new development column in the magazines and visit shows such as this one, but he must visit installations and observe these new things in operation if he is to really understand and have them catalogued in his mind and available when needed.

Let me give you an illustration. Suppose that in some plant you are receiving and using, at three different points, bagged material such as salt or limestone, and you are at present receiving it in carload lots. You may already be using fork trucks and pallets in the plant, so it will be an easy matter to adopt palletization at these points. It might be well possible that the engineer would study the possibilities of bulk handling, with track hoppers and conveyors, and in spite of the fact that he would make considerable savings in packaging and handling of packages, still have to abandon the idea because the first cost of the fixed bulk handling systems at three different places would be prohibitive. On the other hand, if he were to consider other bulk handling systems, such as shovel trucks, he might find that while his labor savings were not quite so much, his first cost was tremendously different, and the change to bulk handling very much justified. If his knowledge of bulk handling equipment had happened not to have included shovel trucks, he would have lost the possibility of doing the best job.

Close to the head of the list I would put *operations*, to some of you that will mean production. It is said you learn by doing, and our expert will do well to have had actual

operating experience before he attempts to improve methods. The swivel chair genius will surely find himself in hot water the first time he meets up with some production super who is pretty well satisfied with things as they are. He needn't have been a salesman to have a pretty good idea of the importance of customer requirements, or seasonal markets, or shipments as promised, or good looking, undamaged stock in the customer's warehouse.

And how about packaging and containers? One of the most serious handicaps I know for a M. H. E. is the lack of fundamental knowledge in this field. The only way materials can be handled without containers is with your bare hands or by the mouthful. And size, and shape, and weight, and constructions, and how filled, and painted, and stenciled, and stored, and shipped all are going to be variables that our man must analyze if he is really going to get the most for your money.

*Warehousing?* Well, it's hardly necessary to mention, except that I think it is one of the most neglected manufacturing functions I know. In most industrial set-ups I have seen, warehousing and receiving and shipping are usually in one department. Check your costs of handling throughout your operations and you will find that handling to and from storage represents a big percentage. The importance here doesn't allow for guessing—our man needs a lot of know-how.

And then there is *traffic*. Do you think he should know anything about carriers—freight cars or freight rates, demurrage, road trucks, capacities, or ships?

Let's include *safety*, that is unless our man is not to be concerned with the well-being of the people who use the equipment, or doctor bills, or extra cost of insurance, or directives from the labor department, or damage suits.

Shall we include a good sound knowledge of *time study and methods*? Could he make comparison of various means of accomplishment without the ability to analyze present and pretty well estimate the value of other possible systems?

I can't name them all, but let's not leave out economy, the ability of the M. H. E. to really determine the worth of an improvement to his company. It's an old joke in some places I've seen that if all the men had been saved that had been claimed, the plant would have been operating by remote control for years. It's a funny thing—I know some very good materials handling engineers who do not use the title, in fact who do not realize that they are so well qualified.

These have all been technical qualifications of training and experience. Let's add some other "must haves" to the list on the personal side. Our man's personality must be aggressive without antagonizing; he must be able to lead, not drive; to sell, not force. If the people who use his systems and gadgets aren't for him, he can't win. Let him be very expert in his ability to keep out of the ruts, to remain open-minded and unprejudiced, to refuse in his own mind to accept any condition as best until he has compared it to other possibilities. He will often be called upon to exercise his best diplomatic manner in order to get a fair trial of something that is new and different. I would say his general attitude should be of constantly seeking something better.

There is something else that enters into the job before we start looking over applicants. What is to be his place in





your organization and how much authority are you going to give him? Let's take the authority first—just enough to keep him from being by-passed by all the other natural-born materials handling engineers who wouldn't ask otherwise. Give him the approval on all materials handling equipment purchases and maintenance and production set-ups, subject, of course, to higher authority in case of deadlocks. Aside from that, let him have no other authority except his salesmanship.

His place in the organization will depend altogether on your decision as to what materials handling means to you. If you're going to require of him only to work out the details of some system someone has approved or suggested, then it will be a wonderful opportunity for some young fellow to learn while he's doing your job fairly well, and his place in the organization is not too important.

If to you materials handling is altogether fork trucks and pallets, or conveyors, a salesman who has worked for several different manufacturers of that equipment can do a remarkable job. If you're satisfied that it is purely an engineering function, and you'd rather leave all operations, traffic, packaging, etc., to their respective departments, the title will fit the location well, he should certainly be in the engineering department.

But if you really want to get the most out of your investment in this man, make materials handling a prime consideration, and take care not to so place him in your organization that his efforts will be *channelled* in limited fields. It is discouraging to be assigned a minor job when important work waits or is hurriedly mishandled by some unqualified person or department. You won't have to worry about his meddling in other department's business—he'll be so busy doing his own job he won't have time to meddle, that is, of course, if your man is qualified to do the job right.

See what I mean by saying this thing gets involved? I can't tell you what a materials handling engineer is—you decide that when you decide what materials handling means to you. The size of your plant or company or corporation has very little to do with our definition of the job. It seems to me the smaller the company, the more quality it would require in this work. It can't afford losses as much as the bigger corporation. Even part-time quality is better than full-time incompetence.

Do you need a materials handling engineer?—I couldn't say. I would suggest that you get someone qualified to make a short survey of your operations, to analyze the possibilities without detailed recommendations. Such a survey should only take about one or two days per plant. But of one thing I would be sure—at least in this preliminary survey the man who makes it must be qualified to see all the possibilities—he will have to be a real *materials handling engineer*.

Mr. Carter's remarks were made at the Materials Handling Conference held concurrently with the Materials Handling Show at Philadelphia, Pa., in January.

W. A. Kennedy, president of WAK Industries of Charlotte, N. C., has patented a machine for use in the textile industry that adds when run forward and subtracts when run backwards. Mr. Kennedy calls his new item a resetting yardage counting machine.

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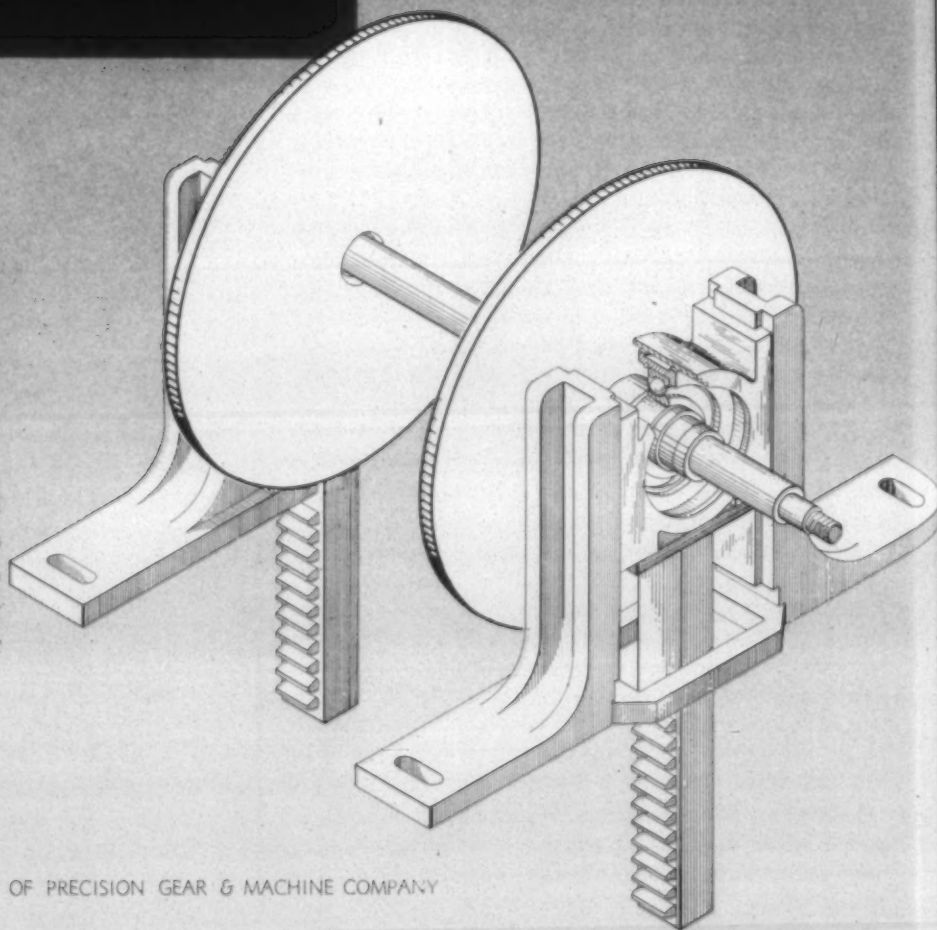
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# Maintenance & Engineering

## Electric Power Entrances And Switchboards

By JAMES T. MEADOR

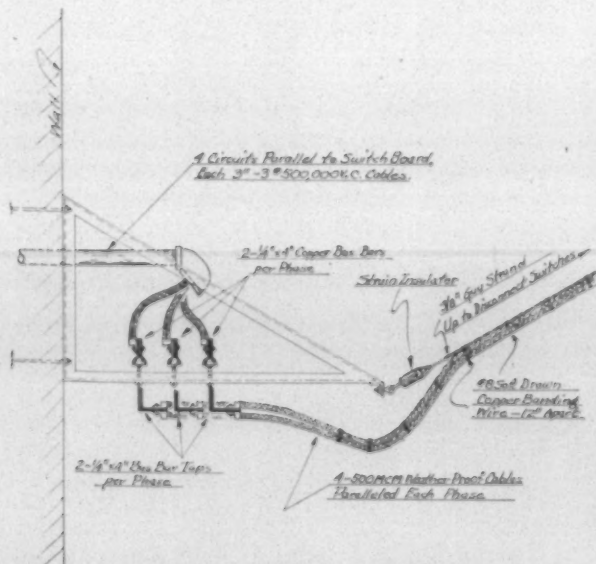
**I**N this issue we take up a subject that has lately become one of increasing interest to textile mills all over the country, due principally to mounting loads brought about by the improved changes in designs of machinery as well as by rearranging or adding machinery to meet the fluctuating requirements of the very unsettled market conditions with which we are being plagued right through these times.

Take the problem of a large, well-known combed yarn mill of Charlotte, N. C., the Johnston Mfg. Co., where it became necessary to increase and rearrange the machinery in every stage or process from the opening room on through the picker room and card room, including sliver lap winders, ribbon lap winders, combers, slubbers and speeders, and on through the spinning room, twister room, winder room and the new Barber-Colman automatic spooler, right up to the packing and shipping room. In each of these departments of the plant where there was additional machinery installed there was the consequent increase in the number of electric motors required. Where the old machinery was replaced by new, the horsepower requirements went up by varying amounts, as you well know how they can, and in the spinning room all the  $7\frac{1}{2}$ -horsepower motors on the old frames were replaced by ten-horsepower motors, with the new frames all coming equipped with 15-horsepower motors. Then came the additional load of the new Barber-Colman automatic spooler which, while in itself is not a considerable increase in power, still adds up to about 20 or 25 horsepower more. The Foster winders and the twisters were about the only machines not changed, rearranged or affected

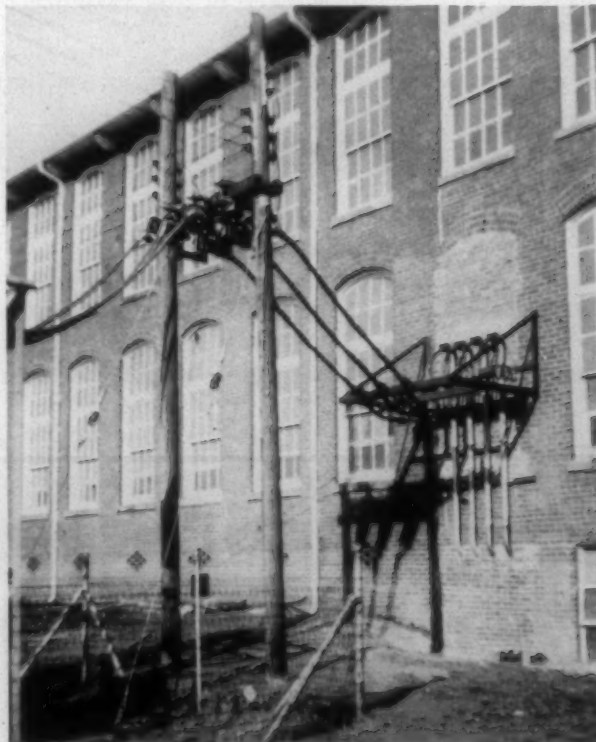
by the upheaval outlined above. In addition to all of this, a vacuum stripping system with a 50-horsepower motor was recently installed, along about the same time as was a 15-horsepower humidifier pump. So, you see, a little here and a little there can make a whale of a difference in the total power requirements of the plant as a whole, as it did at this plant.

This mill had been served by two parallel circuits of three 750,000 C. M. cables in  $3\frac{1}{2}$ -inch conduit from the transformer bank into the switch room, where it was distributed to the various branch circuit breakers from which the feeder circuits went out into the plant to their destinations. These panels were installed about 12 years ago, when the switch room was considered to be ample in its area and available space for such equipment. Now, it was found to be wholly inadequate to accommodate the additional electrical power required by the changes mentioned above. So, something had to be done, and done so that there would be some reserve power available for any change in the machinery or reasonable increase in electrical power requirements.

This "something" which was accomplished was complete



Sketch shows details of service entrance bracket designed and being installed at Johnston Mfg. Co., Charlotte, N. C. It provides a neat and compact means of transposing 12 cables (four three-phase circuits in parallel).



Complete service entrance at Johnston Mfg. Co., running from the Duke Power Co. substation through the disconnecting switches (mounted on "H" frame cross-arms) at the Duke Power Co. delivery point, and down the messenger cable supporting line to the entrance bracket and the distributing bus bar arrangement, at which point the power is transposed into four circuits to the switchboard.

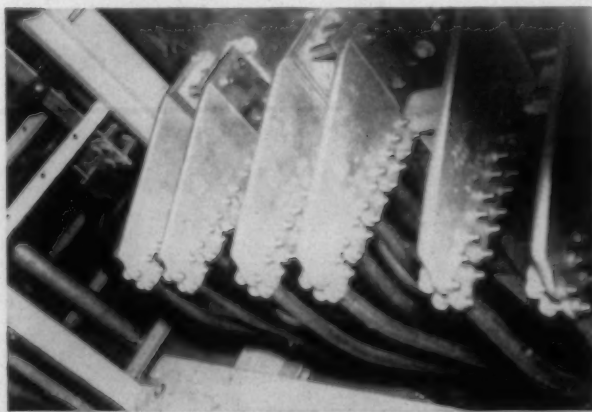
## MAINTENANCE & ENGINEERING

change-over from the old switch panel to the new switch-board without changing the routing or destination of the various branch feeder circuits. In fact, several additional branch feeders were added to go to new and different distribution points in the mill as required by the rearrangement of the machinery, in order to keep the size of the circuit cables down to No. 4/0 or less, with the consequent conduit sizes of 2½ inches or less—which was especially desirable in this case. The service entrance from the weather heads (or entrance caps) outside of the building consisted of four circuits in parallel connected directly to the line side of the 2,000-ampere main air-circuit breaker. Each of these circuits was of three 500,000 C. M. varnished cambric cable in three-inch conduit, and each cable phased out and connected to its particular bus bar on the entrance bracket (see sketch). Each bus bar set consisted of two one-quarter by four-inch copper bus bars supported at each end by special insulators on steel cross-arm mounting pins on the angle iron frame. The mid-point of the bar assembly was braced and made rigid against closing together by short-circuit conditions by means of the same type of insulator supports and pins as was used on the ends, except that the angle iron was only long enough to accommodate the assembly, and therefore might be called a "flying brace" as it was not supported by any part of the structure, as you can see from the sketch. This assembly of two one-quarter by four-inch bus bars per phase gives two square inches cross-section area of bus bar, which provides for 2,400-ampere capacity when rated at 1,200 amperes per square inch in open air.

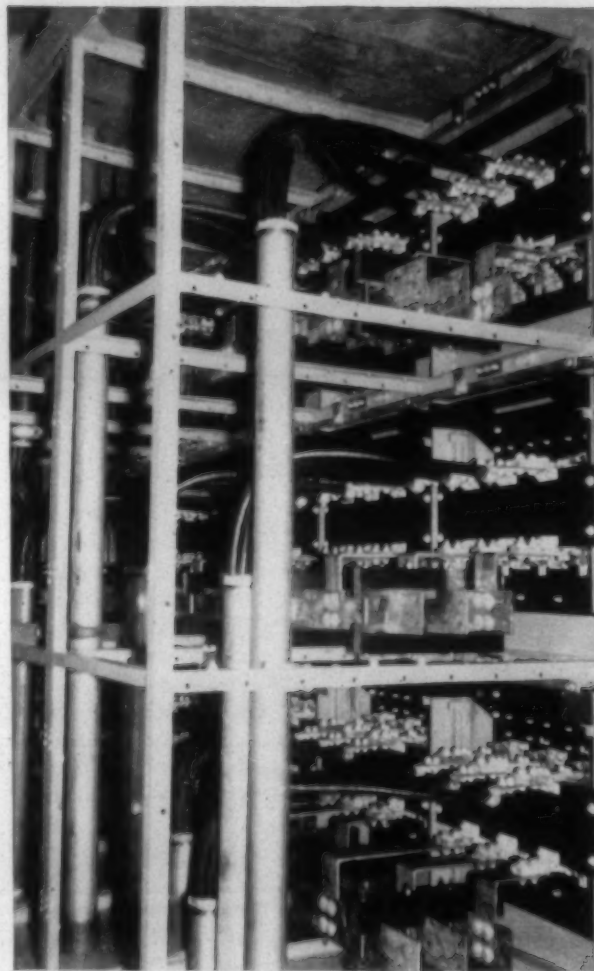
This arrangement of the electrical service entrance has been employed at several mills where it has been necessary to have anywhere from three to six service entrance circuits, with excellent results in service and with the assurance that that part of the power circuit would be trouble-free for a long time to come. Another thing which tends to prevent any trouble from arising is the protection of the whole assembly from any outside damage by iron bars, missiles or falling objects, by means of heavy mesh screen or even, in some cases, quarter-inch steel plate.

The mounting height should be at least ten feet from the ground to the lowest exposed part and then protected from molestation further by a regular factory fence with a gate that can be locked.

If you are on the Duke Power system you will be able to



Grouping of nine 500,000-c. m. varnished cambric cables per phase on the line side terminals of the main 5,000-ampere circuit breaker at Aleo Mfg. Co., Rockingham, N. C. These are copper terminal lugs made especially for this particular switchboard application.



Feeder circuits, each three-inch conduit with three 500,000-c. m. varnished cambric cables from the various branch circuit breakers. These feeders run, without reduction in size, from the branch breakers to their destinations in the various departments.

take your power supply from Duke's delivery point, which may be either a single pole with double cross-arms furnished by them and arranged for your disconnect switches on smaller power services; or, the delivery point may consist of a heavy "H" frame made up of two creosoted-poles with either heavy timber arms or angle-iron arms, also furnished by Duke, and arranged for your larger and heavier disconnect switches for services of 2,000 amperes or larger. In either case, Duke Power will bring its cables to the line side of your switches, and may even provide the connectors necessary for such a connection. This arrangement will provide a neat and orderly power entrance for even the largest plant, and has worked nicely for entrances of capacity up to 5,000 amperes, which incidentally is about the largest you will find at 600-volt rating.

On the other hand, if you are on some other power company's system, you may have to furnish everything directly from the bus bars of the transformer bent. This means not only the disconnect switches but also the poles, arms, etc., and the cable connectors for taking off from the bus bars to your switches, as well as cable connectors for both ends of the switches. Such was the case at the Aleo Mfg. Co., Rockingham, N. C., where three 5,000-ampere, 7,500-volt, heavy-duty, single-pole, underhung disconnecting switches were mounted on a steel frame made of four inches by four inches by half-inch angle-iron, with each phase carried to



the wall of the building, at which point the cables connected with three 1,600-ampere bus ducts in parallel. These cables were grouped nine per phase from nine conductor connectors on the tubular bus bars of the Carolina Power Co. substation (13,000 to 600-volt ratio) to the line side connectors on the switches without any intermediate insulator supports on account of the very short span (less than six feet) and the rigidity of the bus bar supports. From the load-side, or hinge-end connectors of the switches the cables were again grouped nine per phase to the bus duct, and supported through the distance of approximately 15 feet by means of three-eighths-inch steel messenger cable on strain insulators, and all cabled together around this messenger by means of No. 8 soft drawn copper wire wrapped around the group at intervals of six inches along the cable (see photograph of this job).

Thus, you see, with a little imagination, and some cooperation from your local power company you can accomplish an electric power entrance that will embody both ample electrical capacity and neat mechanical appearance.

In fact, there are several Southern mills that have enlarged their services or rearranged power entrances, and have installed new, modern switchboards of the air-breaker type. To mention a few—Aleo Mfg. Co., Rockingham, N. C.; Kendall Mills, Paw Creek, N. C.; Johnston Mfg. Co., Charlotte, N. C.; Hermitage Cotton Mills, Camden, S. C.; Proximity Mfg. Co., Greensboro, N. C.; Carter Fabrics Corp., Greensboro, N. C.; Republic Cotton Mills, Great Falls, S. C.; Woodside Cotton Mills, Greenville and Easley, S. C.; Limestone Mfg. Co., Gaffney, S. C.; Colonial Mills, Aberdeen, N. C., and Clarksville, Va.



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| <b>AHCOWET* RS</b><br>(Anionic)  | For wetting, rewetting and softening, to get quick and uniform penetration as in dyeing and Sanforizing. | Wets instantly in strong acid solutions up to 2% concentration, in neutral solutions and in concentrations of calcium and magnesium salts up to 700-750 parts per million. Good softening power.  |
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# Bleaching, Dyeing & Finishing

## Trends In Fabric Processing—IV

By FRANCIS TRIPP, B. Sc., M. S., Ch. E., Head of Chemistry Department, New Bedford (Mass.) Textile Institute

IN my previous articles much emphasis was put on the proper preparation, scouring and bleaching of cotton piece goods. The trends are toward continuous methods of processing with employment of proper chemicals to acquire satisfactory results with maximum speeds of processing.

With these continuous methods must go continuous chemical checking to be sure everything is functioning as it has been planned. Both the cloth and the chemicals must be checked at regular intervals if everything is to be under control. As we dealt somewhat with the testing of the chemicals in previous writings we will leave a more detailed discussion until later on. We shall deal with the cotton fabric at present.

It is always good policy for a finishing plant to open one or two bales of gray goods as they are received and to take one or two cuts or 120-yard lengths and give the goods a thorough inspection. Such things as degree of dirt, oil spots, grease and weaving imperfections are noted. A swatch can then be cut off and given to the laboratory where the nature of the warp size can be determined. Mills vary greatly in regard to their ability to produce clean, perfect fabric and after several inspections and recordings weaving mills can generally be classified. If the laboratory determines the percentage of sulfonated oil, tallow, starch, dextrine or protein used in the sizing of the warps and records these on a chart then the plant chemist will have a guide as to how the goods should be processed. A mill using a higher percentage of starch in the warp would have to have a more severe and lengthy malting to remove this starch. If excessive tallow softener, oil or waxy material is found, then caution should be exercised to add more soap, detergent and a slightly higher percentage of caustic soda in the bath that precedes the first steam chamber. If a protein was found present then the malt used should have a high percentage of Protease enzyme in order to convert the protein to a soluble condition. Most malts are high in amylase or starch converting enzyme.

As stated above the chemical laboratory in the plant should check the nature and percentage of size in gray goods, especially if the goods from the same mill are coming to the finishing plant very frequently. In this way the best and quickest process can be employed and by reference to the charts it will soon be proven whether or not a weaving mill is producing uniform goods. The size in gray goods will run between four and seven per cent.

The following procedure is commonly employed in the determination of oils, waxes and grease: Dry two ten-gram swatches of gray fabric, each previously placed in a weighing bottle with cover removed, in the open at 105° C. for six hours and then place them in a dessicator to cool. Place

cover on weighing bottle and quickly weigh each patch. This is to obtain the bone dry weight. Place one swatch in a Soxhlet extractor and the other in another Soxhlet extractor. Connect the condenser to the water inlet and outlet and start flow of water. Add petroleum ether through the top of the Soxhlet until thimble is full and overflows. Heat the bottom flask, which should be tared before assembling, with the aid of steam or electricity and extract the patches for five hours. Remove flask, evaporate most of the ether and put it in the oven at 105° C. for one hour. Cool in dessicator and weigh the petroleum ether extract. The difference in weight of the flask with extract and flask alone is the total ether extract. This ether extract divided by the weight of the bone dry swatch before extraction multiplied by 100 equals per cent oils, fats, greases and waxes. The extract in the other Soxhlet extractor will be a check on the first and then with the aid of a little petroleum ether the extracts may be dissolved and combined so as to obtain a larger sample for chemical and physical tests.

*Starch, Dextrine and Water Solubles*—The swatches are removed from each of the Soxhlets and dried in the oven for one hour at 105° C. and weighed in weighing tubes. Each are then placed in a 400 cc. beaker and covered with 300 cc. of distilled water. Enough Diastofor L or other amylase enzyme is added to make a two per cent solution. The bath is brought to a temperature of 135° F. and kept at this temperature for one hour. The patches are rinsed in hot water and dried to constant weight. The loss in weight is calculated as starch and water solubles.

At this point the swatches should present a very clean appearance. A drop of iodine solution (2.5 gms. KI + 1.27 gms. I<sub>2</sub> per liter) dropped on the swatches should show no purple or blue coloration, which denotes starch is no longer present. The total of the ether extract plus the starch and water soluble material equals the total weight of sizing material on the fabric. It must be assumed that approximately 0.5 per cent natural cotton wax was extracted with the petroleum ether and was obtained by extraction in the determination of oils, waxes and grease.

After the above two determinations the patches should be absorbent to a drop of water. This test should be tried and if the patches are not absorbent then something very unusually is present in the size and trouble with uneven prepared goods can be expected. A test for excess wax or a protein size can be looked for. A spot test can be made on the gray goods for protein by employing Millons reagent. Millons reagent is prepared by treating metallic mercury with an equal weight of Nitric Acid 1.4 Spg. (one cc. mercury to ten cc. nitric acid). When the action slackens a gentle heat may be applied until solution is effected. Dilute



the solution with twice its volume of cold water, allow to stand for a few hours and decant the deposit which forms. The solution is then ready for use. Put a drop on the cloth, then pass a flat iron that is just about hot to the hand across the spot several times where the Millons reagent was put on the cloth, so as to heat the cloth to a mild degree. If a protein is present an orange coloration appears on the cloth. This test is excellent for detecting casein.

The above mentioned methods give a good check on the size and amount in each particular gray mill's goods. If a low starch content is found the malting step after singeing can be omitted and the goods drawn to the first saturator where the caustic and detergent is applied before the steaming. In the case of high size content containing a large amount of starch, then the fabric must be malted before saturation with scouring liquor.

Malting is done in the quench box at the singer and the goods are wet out in a two per cent solution of some good enzyme squeezed through nip rolls and plaited into bins and let lay for two hours. The common enzymes employed are Diastafor L, Rapidase, Exsize, Rhozyme DX, Neozyme and Amysol D. Rapidase and Rhozyme DX are heated to 140° F. or above in order to obtain maximum results. The others are kept below 140° F. in order that they will not be destroyed. Diastafor L can be heated above 140° F. if a short desizing is needed. The types of enzymes are as follows: Diastafor L is bacterial liquid enzyme, Rapidase is a bacterial liquid enzyme, Exsize is a malt enzyme, Rhozyme DX is a powdered bacterial enzyme. Neozyme and Amysol D are powdered bacterial enzymes.

After the goods have steeped and the starch converted to maltose a drop of iodine placed on the fabric should give a faint violet or no color at all. The goods are then washed through either an open soaper with hot water and several nips or else through a Williams unit. The fabric is then ready for the first step of the continuous bleach.

When the scoured and bleached fabric is inspected any sections that appear muddy and not a good white should be checked. Cut a patch from one of the sections and test to find why it did not bleach to a good white. First put a drop of water from a dropping bottle on the muddy looking section. The water should penetrate instantly. If it stands on the fabric this denotes resist. Cut a small one-inch square patch from the swatch and immerse it in a weak solution of muriatic acid and potassium ferrocyanide for a minute. If a blue coloration appears there has been an iron soap formation developed on the fabric and the machines and also the gray goods should be checked to see that no iron either from the process water or other sources is coming into contact with the cloth. A weak muriatic acid scour will remove this iron. If no iron is present then some other insoluble formation has deposited in the fabric. Generally a hot water wash containing Calgon or tetra sodium pyrophosphate after bleaching will eliminate any "resist" that may have formed during processing.

The pH of the scoured and bleached fabric should be checked. The fabric should be slightly on the acid side with a pH of five to six. The best way to test the pH of the fabric is by spotting it with one of the so-called Universal indicators that are sold on the market. These are combinations of indicators that are mixed together which show red coloration with acid conditions, orange with mild

acid, blue-green with neutral pH seven, blue with mild alkali, and purple with high pH or high alkali. Also, the fabric can be tested for pH by wetting a spot with distilled water and then laying a piece of the common range pH paper on the wet spot and squeezing the cloth together so as to pinch the paper that is enclosed in the cloth.

Care should be used in choosing a blueing agent for white goods. The common blueing solutions sold on the market are not too fast to light and if folded cloth is left any length of time in sunny rooms there is danger of fading on the edges of the lap. If a vat blueing agent is used such as was required on government whites during the war then there is danger of getting into trouble on any work that needs to be re-handled for stains, etc. Any soap and soda ash scour will partially make the vat blueing in the cloth flow to other sections of the cloth and uneven blueing will result. Some of the plants are now experimenting with the new Tinopal by Geigy, Neo-White by Fiber Processing Laboratory, and Uvitex R. S. by Ciba. These are fluorescent dyes that appear blue to the eye in daylight. Only five grains per gallon of solution has to be used to produce this blueing effect.

When it is suspected that the fabric has been chemically damaged then certain chemical tests can be performed. Of course the usual machine tensile strength tests are made on the sections where the damage is considered to have taken place. Both warp and filling break tests are made and compared to the strength of a normal scoured and bleached piece of the same identical gray goods.

The degradation of cellulose or estimated effect of chemical damage to cotton piece goods can best be detected by fluidity measurements. This is a test that originated in connection with cotton intended for use in explosives and its present form can be credited to the work of Ost (1911) Gibson and associates (1922), Farrow and Neale of the British Cotton Industry Research Association (1924) and finally Clibbens and Geake (1928).

It consists essentially of dissolving an exact weight of cotton (0.1 gram) to be tested in a specially made up cuprammonium solution (20 cc.) and allowing this cotton to dissolve in the cuprammonium. The greater the chemical attack that has been made on the cotton fabric during processing the more fluid the cuprammonium becomes. The making of the cuprammonium solution is somewhat of a detailed procedure and will be omitted here. For details on the method of making reference should be made to *Textile Analysis* by S. R. Trotman, published by Charles Griffen & Co. of London, and the booklet, *The Viscosity of Cellulose Solutions* by Department of Scientific and Industrial Research—Fabric Research Committee, published by D. Van Nostrand Co., Inc., of New York. The cuprammonium should contain 15 grams of copper, 200 grams of ammonia and less than 0.5 gram of nitrous acid per liter. The cotton is cut up very finely in order to facilitate its dissolving and great care must be taken not to have any of the small bits blown away. Both the 0.1 gram of finely cut up fabric and 20 cc. of the cuprammonium are placed in a viscosity tube along with one cubic centimeter of mercury. The viscosity tube is employed to dissolve the cotton in the cuprammonium and the tube is closed at the top by a rubber stopper, into which is inserted a capillary tube closed off by a piece of rubber tubing and a pinch cock. The other end or delivery end is a capillary 2.5 cm. long, .088 cm. in internal diameter and .6 cm. in external diameter. This is closed by

a piece of rubber tubing and a pinch cock. Each tube or viscometer is calibrated with a mixture of glycerine and water prior to use. This detailed information is given in the references referred to above. However, these tubes or viscometers can be bought all calibrated and a so-called Constant  $C'$  given for each tube. The viscometer after being filled is wrapped in black paper to protect the cuprammonium from the light and then bound to the spokes of a wheel that revolves about four revolutions per minute. As the wheel revolves, the mercury in the viscometer flows from one end of the tube to the other and helps facilitate the dissolving of the cotton fabric in the cuprammonium. After the solution of the cellulose is complete (about eight hours) the tube is removed from the rotating wheel and cooled to 20° C. The lower clamp and tube are removed and then with the aid of a stop watch the time in seconds is recorded for the meniscus to fall from line Y to Z on the viscometer. The solution will not begin to fall until the stopper in the top has been removed. If  $t$  is the time in seconds for the meniscus to fall from Y to Z then the formula for the fluidity of the cellulose is:

$$F = \frac{C'}{t - K/t}$$

where  $C'$  and  $K$  are known constants of the viscometer.

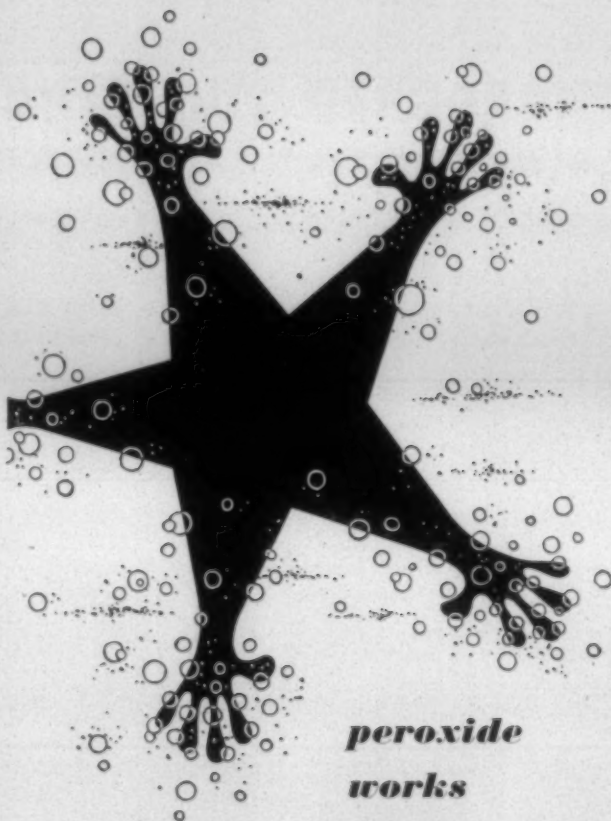
It is best to have about a dozen viscometer tubes so that a series of tests can be run at one time.

The fluidities of two per cent rayon solutions in cuprammonium run about the same as 0.5 per cent cotton fluidities so it must be remembered that if fluidities of rayon are to be measured then about 0.4 gram of rayon must be weighed accurately and dissolved in the viscometer. For normally bleached cotton fabric the fluidity will run as high as ten if sodium hypochlorite (chemic) is used and usually if peroxide bleach is used it will be about four or five. Any fluidity on cotton that is below five is considered very mildly prepared and bleached. A fluidity of 20 or more indicates badly over-bleached cotton and tensile strength will be very much lowered. A normal processed rayon will show a fluidity of about 30.

Many finishing plant laboratories have the above described apparatus in order to standardize on methods of scouring and bleaching to give good tensile strength to the fabric. It is well known that rayon fabrics do not need nearly the scouring and bleaching as does cotton. Rayon fabrics in most cases need only de-sizing and scouring with perhaps at most a very light bleach in chemic followed in a very few minutes with a wash, bisulphite and wash.

### Converting Rules Hearing Set April 5

The Federal Trade Commission will hold a public hearing April 5 at the Federal Trade Commission Building in Washington for the purpose of considering amendments and supplementation of the trade practice rules for the cotton converting industry as promulgated by the F. T. C. Aug. 18, 1939. All persons, partnerships, associations or other parties and groups affected or having an interest in the rule changes are invited by the F. T. C. to be heard on the premises and to present their views, including such pertinent information, suggestions or objections as they may desire to submit. Those unable to attend the meeting are offered the opportunity to submit their opinions in writing, to be filed with the commission not later than April 5.



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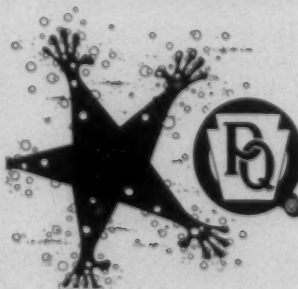
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## PERSONAL NEWS

Williard M. Wilbanks, for the past seven years athletic director for Duncan Mills at Greenville, S. C., has resigned to become athletic director for Riegel Textile Corp. at Ware Shoals, S. C. . . . William Bailey has resigned as athletic director for Piedmont (S. C.) Mfg. Co. Earl Wooten of Pelzer, S. C., an outfielder with the Washington Senators of the American League last season and currently in training with the Chattanooga team of the Southern Association, will succeed Mr. Bailey as athletic director at Piedmont. He will assume his new duties Oct. 1. . . . John Wahonic has retired as athletic director of Pacific Mills at Lyman, S. C., in order to assume a position in the bleachery.

Newton G. Hardie, who resigned recently as general manager of Laurens (S. C.) Cotton Mills, will this month take a cruise with Mrs. Hardie to the Panama Canal Zone and Guatemala, returning to Laurens about the middle of April. . . . W. M. Ford, manager in charge of sales and production for Drayton Mills at Spartanburg, S. C., since 1942, has succeeded Alan B. Sibley as treasurer of Laurens Cotton Mills. Mr. Sibley will devote more time to his duties as vice-president of Judson Mills at Greenville, S. C. . . . W. H. White continues as general superintendent at Laurens.

Allie Holt, formerly of Danville, Va., has become associated with the new worsted plant of Pacific Mills at Drakes Branch, Va.

David A. Purcell has been promoted from superintendent of the blanket and sheeting plants of Fieldcrest Mills at Draper, N. C., to general superintendent of the blanket, sheeting, bleachery and finishing plants, reporting to J. H. Lindsay, group plant manager. C. A. Davis, formerly assistant superintendent of the blanket plant, has been appointed superintendent of that unit. Ralph C. Going, formerly assistant superintendent of the sheeting plant, has been named superintendent there. Now reporting to Mr. Purcell are Messrs. Davis, Going, F. T. Suttentfield (superintendent of bleachery and finishing plants), and S. G. Strader (master mechanic at the Draper plants). R. J. Adkins, night superintendent of the blanket and sheeting plants, reports to Messrs. Davis and Going, respectively, on matters pertaining to those plants.

M. Weldon Rogers, director of research and development for Ely & Walker Dry Goods Co., St. Louis, Mo., has been elected a vice-president of the firm. Prior to joining Ely & Walker some four years ago Mr.

Rogers was general superintendent of Jackson Mills at Wellford and Iva, S. C., and in 1944-45 was president of the Southern Textile Association. Before going with Jackson Mills he was general superintendent for the old Chadwick-Hoskins Co. at Charlotte, N. C.

Ingram Dickinson, treasurer and manager of Southern Belting Co. at Atlanta, Ga., has been elected president of the American Leather Belting Association.

Wallace Splawn, formerly with Pacific Mills at Rhodhiss, N. C., is now assistant superintendent at Saratoga Victory Mills, Albertville, Ala.

G. G. Huffstetler, formerly of Belmont, N. C., is now superintendent of Worth Spinning Co. at Stony Point, N. C., succeeding F. E. Wyatt.

V. J. Lipscomb has been promoted from superintendent to plant manager of Pied-

mont (S. C.) Mfg. Co. J. H. Cleveland, Jr., has succeeded him as superintendent. Former Planning Supervisor P. W. Nipper has been named assistant to Mr. Cleveland, and J. A. Copple has been promoted to planning supervisor.

Harry C. Coley, president and treasurer of Howard Bros. Mfg. Co., Worcester, Mass., has been elected a permanent trustee of Clark University at Worcester.

J. O. King, formerly of Guntersville, Ala., is now overseer of weaving for Mico-las Cotton Mills at Opp, Ala.

John Boyd has been promoted to assistant superintendent at the Myers and Ridge Plants of Textiles, Inc., Gastonia, N. C.

Jack Market, previously second hand of the worsted spinning and drawing department, has assumed duties as assistant overseer of the Unity Plant worsted unit, Callaway Mills Co., LaGrange, Ga. . . . Luther



**SCIENTIFIC JOB-HUNTING**—George H. Dunlap (known as Flopie to acquaintances), director of the placement bureau at the North Carolina State College School of Textiles, Raleigh, interviews Ralph Strother, a senior in textile manufacturing at the school, in preparation for finding employment for the prospective graduate in the textile industry. Technical Consultant Dunlap is now in the midst of his busy season of finding jobs for the 272 seniors who will graduate between now and August. The placement bureau, established at the beginning of the 1947-48 term, attempts to find the right job for the graduate as well as find the right graduate for the job. Seniors are asked to fill in forms which include their complete histories, ages, college records, hobbies, experiences in business, the position in industry and sections of the country preferred, etc. This record is supplemented by another which, based upon a form filled in by five teachers, rates the graduate as to intelligence, ability, leadership, enterprise, personality and other things in which a prospective employer would be interested.

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## PERSONAL NEWS

E. Davis has been promoted to second hand of the Valway Plant weave room, and Ennis F. O'Neal has assumed duties as second hand in the Valway tufting room.

Paul E. Bowie, Jr., has been promoted to the superintendency of Bur-Mil's Puritan Weaving Plant at Fayetteville, N. C., succeeding C. R. Wenner. A graduate of Clemson College, Mr. Bowie has been associated with Bur-Mil since 1935. . . . M. R. Spera and A. T. Curlee have joined the Newton (N. C.) Rayon Plant as weave room overseer and personnel supervisor, respectively. . . . Hubert Woodall has succeeded Frank E. Barber as assistant superintendent of the firm's Radford (Va.) Weaving Plant. Mr. Barber will receive further training at other plants in the Filament Weaving Division. . . . W. L. Triplett has been assigned general supervision of both the Yarn Dyeing and Piedmont Preparatory Plants of the Decorative Fabrics Division at Burlington, N. C. He is a graduate of Clemson College, joined Burlington in 1939 and has been superintendent of the Yarn Dyeing Plant since 1946. . . . Emory Miller, assistant superintendent of the Cetwick Throwing Plant at Asheboro, N. C., recently underwent a serious operation but is reported to be recovering satisfactorily. . . . J. Spencer Love, chairman of the board, is featured in an article concerning the textile industry appearing in the business and finance section of the March 14 issue of *Time* magazine. The history of Burlington Mills is traced from the time Mr. Love first invested \$3,000 in a Gastonia, N. C., mill to its present-day size as owner of 81 plants grossing \$288,000,000 in sales last year.



William R. Muller, left, has been appointed assistant to Edward J. Bullard, president of the Bullard Clark Co. of Danielson, Conn. This company was organized in 1948 as the connecting link between its four operating divisions: E. H.

Jacobs Northern Division, Jacobs Rubber Division and Williamsville Buff Division, all of Danielson, and E. H. Jacobs Southern Division of Charlotte, N. C. Mr. Muller, a graduate of the University of Massachusetts, joined the organization in April, 1946, formerly having been associated with Lamont Corliss & Co. of New York.

A. J. Komenak has joined the sales and service force of Hart Products Corp. in South Carolina, eastern North Carolina and parts of Virginia. He is making his headquarters at Spartanburg, S. C.

Tracy A. Adams, pictured at left below, has been appointed executive vice-president and general manager of the United States Finishing Co. of Norwich, Conn. Mr. Adams will take over active supervision of an extensive modernization and rehabilitation program at the four plants of the company, one of them being Hartsville (S. C.) Print & Dye Works. Mr. Adams has had wide experience in the industry and prior to accepting his new post was consulting

engineer with Barnes Textile Associates of Boston. The company also announced that



Jarred J. Mowry, right, long associated in supervisory capacities, has resigned as executive vice-president and general manager to assume the post of general manager of the Hartsville plant. The lightening of Mr. Mowry's duties was made necessary as the result of physicians' orders. He will continue as a member of the board of directors.

Kenneth Shupp, at one time connected with Cannon Mills Co., Kannapolis, N. C., recently joined the sales staff of Southern Standard Mill Supply Co. of Charlotte, N. C.

George Piacitelli has been named head of the Stafford Printers Division of Goodman & Theise, Inc., in Stafford Springs, Conn. Mr. Piacitelli previously was connected with Horvath Mills, Inc., and Clearwater (S. C.) Finishing Co. of United Merchants & Manufacturers, Inc.

Charles T. Brown of Charlotte, N. C., has joined the new business department of James Talcott, Inc., New York City factoring firm. Through an error in the February issue of *TEXTILE BULLETIN*, Mr. Brown was referred to as Clarence T. Brown. Specializing in accounts receivable financing, he will cover the territory south of Washington, D. C., in conjunction with Clarence Knowles, Talcott's Atlanta, Ga., representative, who specializes in textile factoring.

Kenneth A. Morrissey and Catesby Jones, both graduates of the University of Virginia, have joined the staff of the Institute of Textile Technology at Charlottesville, Va. Mr. Morrissey has been assigned to the institute's biology division and Mr. Jones to the organic chemistry division.

James L. Truslow is resigning April 1 as overseas representative of the American Viscose Corp. to become director of foreign sales for the Saco-Lowell Shops. He will make his headquarters in Boston. A 1923 graduate of the Massachusetts Institute of Technology, Mr. Truslow has spent his entire career in the textile industry, with the exception of four years spent in the Navy during the war.

Robert W. Linscott of Winchester, Mass., has been elected treasurer of Lincoln Mills of Alabama, Huntsville, Ala., succeeding Charles D. McDuffie, treasurer for the past 17 years, who was elected to the vice-presidency. William A. Barroll was re-elected president and Phill W. Peeler was re-elected secretary and general superintendent.

Rupert T. Zickl and Walter N. Maguire have been elected directors of the Aspinook Corp. Mr. Zickl is associated with the Barram Brothers Corp. of New York and Mr. Maguire is a director of Unilac, Inc., an affiliate of Nestle-Alimentana S. A. of Swit-

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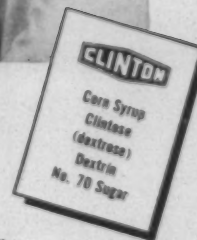
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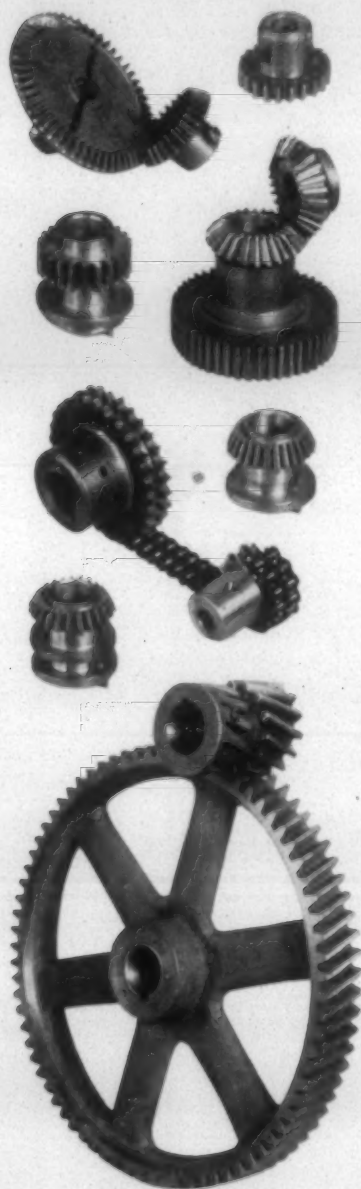
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# PERSONAL NEWS

zerland. Aspinook Corp. controls Union Bleachery at Greenville, S. C.



W. Chester Cobb, left, has been elected vice-president in charge of sales of manufactured products of Arnold, Hoffman & Co., Inc., manufacturing chemists of Providence, R. I. At the same time, Leonard G. Tubbs was appointed assistant

general sales manager. Mr. Cobb previously had been Southern sales manager since his discharge from the Army in 1945. He joined Arnold, Hoffman & Co. as a salesman in 1934 immediately after his graduation from Clemson College. Prior to the war, he was manager of the firm's Charlotte, N. C., office. Mr. Tubbs, who has been Northern sales manager since 1945, joined the firm in 1939 as manager of the New York office. Previous to this he had been associated with the United States Finishing Co. and National Dyeing & Printing Co.

Max Potash, who was previously associated with the chemical division of the Tennessee Valley Authority and more recently with Publicker Industries, Inc., has joined the staff of the American Polymer Corp., Peabody, Mass., where he will have charge of pilot development involving the transition of research projects into production.

R. K. Eaton, head of the department of yarn manufacturing of the Clemson College School of Textiles, retired from active duties Feb. 1 after 25 years service at the school.

Farrar O. Griggs, formerly assistant superintendent of Plant No. 2 of Cannon Mills Co. at Concord, N. C., has been appointed assistant purchasing agent for the firm. D. Ray McEachern, Jr., has been transferred from Plant No. 4 at Kannapolis, N. C., to succeed Mr. Griggs.

Alex M. Gover has been re-elected president and general manager of Biltmore Industries, Inc., Asheville, N. C. Others officers re-elected included Robert A. Stevens, vice-president and superintendent; Michael L. Taft, vice-president and sales manager; and Mrs. Julia B. Lynch, secretary-treasurer. Fred Seely, Jr., who recently resigned as active head of the company to re-enter the Navy, is chairman of the board.

Buell L. Little has been named director of styling and fabric development for Mooresville (N. C.) Mills. Mr. Little, a graduate of North Carolina State College with a degree in textile manufacturing, has been connected with the firm for three years.

Andrew L. Lindblom, secretary and assistant treasurer of Drayton Mills at Spartanburg, S. C., has been named to head the textile division of the Red Cross Campaign in Spartanburg County.

Everett H. Ashton and Robert G. Mallard have resigned from their posts with the M. W. Kellogg Co. They are credited in indus-

trial circles with being the persons who persuaded M. W. Kellogg Co. to enter the loom manufacturing field. Before joining Kellogg, they operated Gordon-Hall Co., Knoxville, Tenn., a firm specializing in dismantling and rebuilding textile machinery. They have not announced their future plans.

J. E. Gunter, overseer of carding and spinning at the Liberty, S. C., Plants Nos. 1 and 2 of Woodside Mills, has resigned after spending 46 years in the textile industry. W. P. Evans of Union, S. C., has succeeded Mr. Gunter.

Oliver May has resigned as treasurer of Textron, Inc. His resignation was effective March 15 and since that time F. H. Kissner, vice-president, has been acting as treasurer.

R. Horace Johnston of Charlotte, N. C., president and treasurer of Johnston Mfg. Co., and his sister, Mrs. Rosa Johnston Stokes, recently contributed \$100,000 to the Davidson (N. C.) College drive to raise \$2,500,000.

Julius B. Goldberg, research director of J. P. Stevens & Co., Inc., has been elected to fellowship in The Textile Institute, London, England. Mr. Goldberg represented the Textile Research Institute and the American Association of Textile Technologists at the meeting of the International Organization for Standardization in Buxton, England, last June.

Charles K. Seid has organized C. K. Seid Associates, textile brokerage firm, with offices at 450 Fourth Avenue, New York City. He previously was associated with American Bemberg Corp., Peerless Mills, Inc., and Celanese Corp. of America. Associated with him in the firm will be C. K. Seid, Jr., formerly with Forge Mills.

Chester Arnold, personnel director for Cone Mills Corp., Greensboro, N. C., attended the President's Conference on Industrial Safety held March 23-25 in Washington, D. C.



W. M. (Bill) Kline, Jr., left, has been appointed sales manager of the textile division of Texize Chemicals, Inc., and is making his headquarters in Greenville, S. C. He assumed his new duties March 15. Mr. Kline received a B.S.

degree in chemistry from Clemson College and since his graduation has been associated with Stein, Hall & Co.—serving for the past two years as manager of the firm's Charlotte, N. C., office. . . . He has been succeeded in Charlotte, temporarily, by Frank W. Perry, manager of the textile sales department of Stein, Hall & Co. Mr. Kline is well acquainted with the textile industry in the Southeast and will continue to serve this territory with Texize Chemicals.

Mertis Carpenter, sales representative for Sonoco Products Co. of Hartsville, S. C., whose territory formerly included Georgia, Florida, Alabama and Mississippi, will continue to call on Sonoco customers in Geor-

gia and Florida and also part of Tennessee. John Long, representative in Texas and adjoining states, will continue to serve that area and in addition will have Mississippi and Alabama.

William B. MacLeod has been elected treasurer of Wilkes-Barre Lace Mfg. Co. and its subsidiary, Clarence Whitman & Sons, Inc. Mr. MacLeod has been assistant treasurer since 1946.

Charles F. Schroeder has been appointed to the newly-created office of advertising promotion manager of Reeves Brothers, Inc., cotton textile manufacturers. Mr. Schroeder comes to Reeves from the company's advertising agency, Gould & Tierney, Inc.

Walter K. Krause has been appointed assistant secretary and Richard S. Perry assistant treasurer of William Iselin & Co., Inc., of New York, factors. Mr. Krause joined the firm in 1942 and Mr. Perry in 1941.

R. B. Warren has been named manager of the new Southern sales division of the Goodyear Tire & Rubber Co. mechanical goods sales division, which includes the Charlotte, Atlanta, St. Louis and Dallas districts. He was manager of the Pittsburgh district before his new appointment.

Francis H. Ludington, who has served as an official of the Textile Bag Manufacturers Association for 11 years as vice-president, has been elected president of the association.

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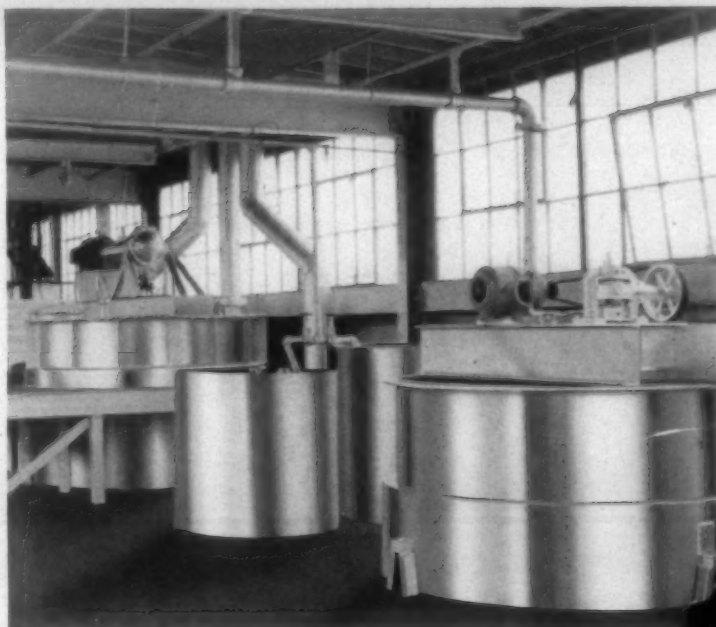
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### PERSONAL NEWS

month. His father, Charles E. Carpenter, was with the company for 49 years, and served as president up to his death in 1929. His grandfather, Aaron E. Carpenter, who helped to found the firm in 1865, headed it for 49 years.



Pictured at left is Julian T. Pool, who has taken over the sales territory in Georgia and Alabama previously covered for New York and New Jersey Lubricant Co. by the late Frank D. Jacobway.

John A. McPherson, Sr., of Greenville, S. C., senior partner of McPherson Co., architects and engineers well known in the textile industry, has been honored by the American Society of Mechanical Engineers with an elevation from a Member to a Fellow, one of the highest honors an engineer can receive.

Eight personnel changes in the research, sales and technical service sections of three divisions of the rayon department were announced Feb. 16 by E. I. du Pont de Nemours & Co. Dr. Frank K. Signaigo, assistant director of the rayon department, is at the head of the rayon department.



Ervin B. Allred of Pomona Mfg. Co. and John Kilpatrick of Southern Webbing Mills, Inc.

J. F. Nicholl has been elected vice-president and a board member and G. H. Day II has been named vice-president of Chicopee Mfg. Corp. of Georgia, operating several woven plastic plants in that state. Mr. Nicholl is general manager of Chicopee's Lumite Division, and Mr. Day is general sales manager of the division.

Campbell D. Garrett and Andrew J. Sokol, vice-presidents and identified with the firm's merchandising divisions in New York City, and George P. McClenaghan of Greenville, S. C., general manager of several of the firm's Southern units, have been elected to the board of directors of J. P. Stevens Co., Inc.

Alden H. Burkholder has been named manager of rayon research for Industrial Rayon Corp., Cleveland, Ohio. Kenneth M. McLellan and Dr. George P. Standley have been appointed assistant managers of rayon research.

Floyd T. Noah, head of the Cone Mills Corp. payroll department, has been elected a life honorary member of Delta Pi Epsilon, honorary business education fraternity, which has a chapter at the Woman's College of the University of North Carolina in Greensboro.

M. Earl Heard, vice-president in charge of research for West Point (Ga.) Mfg. Co., has been appointed chairman of the recently formed committee on research of the American Cotton Manufacturers Association.

John L. Gillis, previously director of the Monsanto Chemical Co. foreign department at St. Louis, Mo., has been appointed acting general manager of the firm's Merrimac Division, with headquarters at Boston, Mass. Mr. Gillis assumes the duties of Josiah B. Rutter, Merrimac vice-president and general manager, who has been hospitalized for an indefinite period.

Sherman R. Basinger, superintendent of the White Oak Plant of Cone Mills Corp., Greensboro, N. C., recently suffered a heart attack but now is reported to be recovering satisfactorily.

Lynn Casler, assistant secretary and office manager for the Phoenix Division of Beaunit Mills, Inc., at Statesville, N. C., next month will assume the position of assistant to H. Rogosin, Beaunit's vice-president in charge of production with headquarters in New York City.

G. Webber Knight has been placed in charge of the new Washington, D. C., office of the McPherson Co., architectural and engineering firm with headquarters at Greenville, S. C.

George Cramer, former treasurer of Cramerton (N. C.) Mills, Inc., was sworn in March 14 as textile specialist in the Paris

See "Before Closing Down"  
for more Personal News

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office of the Economic Co-operation Administration. His duties will be to expedite the manufacture and shipment of textiles essential to European recovery.

Cason J. Callaway of the LaGrange, Ga., textile family has been named a director of Shell Union Oil Corp.

## OBITUARIES

**Clarence R. Howe**, 63, former president of U S Bobbin & Shuttle Co., Lowell, Mass., and more recently a manufacturer's agent, died March 9 after a brief illness. Mr. Howe was president of U S Bobbin & Shuttle Co. from March, 1945, until March, 1947. Surviving are his wife, a son, a daughter and a brother.

**Horace B. Burke**, 44, general manager of Wehadkee Yarn Mills at Talladega, Ala., died suddenly Feb. 20. Surviving are his widow, his parents, five brothers and four sisters.

**Walter W. Gayle**, 58, of Charlotte, N. C., vice-president of Southern sales for Saco-Lowell Shops, Inc., died March 1 after a brief illness. A native of Montgomery, Ala., Mr. Gayle was a graduate of the University of Alabama and the Philadelphia Textile Institute. His first connection in the textile industry was with Mt. Vernon-Woodbury mills in Baltimore, Md. He joined Saco-Lowell Shops in 1917 as a sales engineer. In the ensuing nine years he was located in Atlanta, Ga., Greenville, S. C., and Charlotte. In 1926 he was advanced to Southern agent for Saco-Lowell, making his headquarters in Charlotte. About a year ago he was elected a vice-president of the com-

pany. Mr. Gayle possessed a genial personality that won him a wide circle of friends during his 32 years in the textile industry.



The Gayle plant of Springs Cotton Mills at Chester, S. C., was named in his honor. He was active in a number of civic groups in Charlotte and was also an associate member of the American Cotton Manufacturers Association and of the North Carolina Association of Cotton Manufacturers. Surviving are his wife, one son, who is connected with Springs Cotton Mills at Fort Mill, S. C., a daughter, a brother and two sisters.

**Z. F. Cranford**, 69, general manager of Craftspun Yarns, Inc., at Kings Mountain, N. C., died March 14 of a heart attack.

**Joseph T. Buie**, 59, assistant treasurer of Randolph Mills, Inc., Franklinville, N. C., died recently. Mr. Buie, who had been

connected with Randolph Mills for 45 years, is survived by his wife, three sons and three sisters.

**Winfield T. Potter**, 60, of Greenville, S. C., well known in the textile industry in the South as head of Potter & Shackelford Construction Co., died March 8 after an illness of several months. Surviving are his wife, his mother, a son and a daughter.

**Stockton C. Peckham**, 51, a member of the E. I. du Pont de Nemours & Co. rayon organization for 20 years, died March 7 at a Philadelphia, Pa., hospital. Mr. Peckham was unmarried and made his home in Wilmington, Del.

**Edward L. Green**, 92, prominent business and civic leader of Yadkin College, N. C., one of the founders of the old Nokomis Cotton Mill at Lexington, N. C., died March 3 after a long illness. Surviving are three sons, two daughters and a sister.

**Henry E. Fries**, 91, president of the Winston-Salem (N. C.) Southbound Railway and one of the organizers of the Southside Mfg. Co., now Arista Mills, died suddenly March 3 while at his desk.

**Charles E. Hathaway, Jr.**, 55, who was in charge of the New York sales office of Renfrew Bleachery, Inc., died last month at his home in Upper Montclair, N. J. Surviving are his wife, a daughter and three sisters.

**William F. Chapman**, 74, who retired in 1943 as superintendent of the Riverside group of mills, now Dan River Mills, Danville, Va., died recently after a lengthy illness.

## MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

**DURHAM, N. C.**—Through Lockwood Greene Engineers, Inc., Spartanburg, S. C., office, architect-engineers on the new air conditioning installations for Plants 1 and 4 of Erwin Cotton Mills Co., a contract valued at \$100,000 has been placed with William Muirhead Construction Co. for the construction of apparatus rooms for air conditioning equipment at these plants.

**BOILING SPRINGS, N. C.**—Weavers Spinning, Inc., has been adjudged bankrupt by order signed in the Western District of United States Court. The affairs of the company are being handled by R. Mason Ross, referee in bankruptcy of Charlotte, N. C. The firm utilized 3,024 spindles in the production of 20s to 30s carded yarns.

**WILMINGTON, N. C.**—Rhett Mfg. Co. has been organized and granted a charter to manufacture and process cloth, plastic and wood, etc., under an authorized capital stock of \$100,000. Incorporators are Haskett Rhett, Jane Rhett and Robert Bellamy, all of Wilmington.

**LINCOLNTON, N. C.**—The Lincolnton and Southside plants of D. E. Rhyne Mills, Inc., have been awarded the Certificate of Merit from the North Carolina Cotton Man-

ufacturers Association for completing the Statewide Textile Safety Contest without a lost-time accident during the contest period, January to August, 1948. This marks the fourth successive year the Southside plant has won the award and the third time in the past four years for the Lincolnton plant.

**MONROE, N. C.**—Wilson Lewith Machinery Corp. of Charlotte, N. C., has purchased the combed yarn manufacturing plant of Monroe Textiles, Inc., from Bloom Mills, Inc., of New York and is offering the mill for sale. The plant has approximately 9,000 spinning spindles, 27 cards and 12 combers.

**ENKA, N. C.**—Because of the decrease in demand for rayon yarns and in keeping with its policy not to accumulate any inventory under present conditions of high cost, the American Enka Corp. plant here has started a program of curtailment aimed at producing only the yarns necessary to meet the requirements of its customers.

**FRANKLINTON, N. C.**—The Burlington Foundation, charitable trust established by the Burlington Mills Corp., recently made a donation of \$1,000 to Louisburg College. Presentation of the gift was made by John Farish, superintendent of the Vamoco Plant

of Burlington Mills Corp. at Franklinton, in behalf of Charles F. Myers, Jr., representing the foundation, and Dr. Samuel M. Hilton, president of the college.

**PENROSE, N. C.**—Naumkeag Steam Cotton Co., operator of Pequot Mills of Salem, Mass., has announced that machinery at the Salem plant which has been idle will be shipped to the new Penrose plant.

**LUMBERTON, N. C.**—Two hundred and twelve deeds conveying titles to homes in the East Lumberton mill village from Mansfield Mills, Inc., to employees were recorded here recently. This is said to be the largest number of deeds ever presented at one time for recording in Robeson County.

**ROANOKE, VA.**—Because of "a sudden decline in the entire textile market," American Viscose Corp. has announced a 20 per cent cutback in production at its plant here. Six other plants in the Avisco system also are curtailing production for the time being, it is reported.

**HARTWELL, GA.**—Textron Southern's new \$2,500,000 rayon weaving mill was formally opened March 25th with a gala "jubilee of progress" program. Royal Little,

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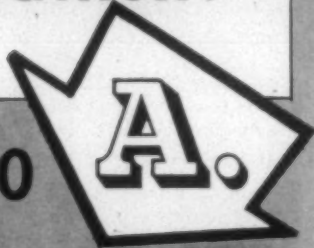
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### MILL NEWS

president of Textron Incorporated, and Charles H. Dyson, executive vice-president, attended the event. Principal speakers were Gov. Herman Talmadge of Georgia and Gov. J. Strom Thurmond of South Carolina.

**ATHENS, GA.**—Athens Mfg. Co. is converting 15,000 square feet of floor space from the manufacture of tire cords to rayon dress goods and sports wear. About 200 Draper Model XD looms are to be installed.

**COLUMBUS, GA.**—Columbus Mfg. Co., a subsidiary of West Point (Ga.) Mfg. Co., has announced plans for further diversification of its industrial fabrics by the addition of sheets and pillowcases to the lines after June 1. The parent company has also authorized plans for an office building in West Point to cost about \$400,000. A laboratory and technical building for the research division at Shawmut, Ala., is proposed.

**MACON, GA.**—Payne Mill, a unit of Bibb Mfg. Co., is to be air conditioned at a cost of about \$300,000. The installation will require complete insulation of the roof and the placing of compressors to provide refrigerated air.

**CORNELIA, GA.**—Construction is nearing completion on a 10,000 square foot addition to the main plant for production of Lumite woven saran screening and fabrics at Chicopee Mfg. Corp. The expansion will provide 20 per cent more space at the plant and will step up output. The Lumite plant, built in 1946, is one of the most modern in the South. Chicopee operates another Lumite plant at Buford, Ga.

**LAREDO, TEX.**—Capitalized at \$20,000, Texas Carpet Corp. has been organized here to engage in a manufacturing business. Listed as incorporators of the new firm are Ernest H. Mayer, E. H. Borchers and R. J. Mayer.

**BROWNWOOD, TEX.**—Ziack Industries, Inc., will begin operation of Texas' first major woolen mill here in about two months, company officials announced recently. The Brownwood mill represents an investment of more than \$300,000 and will produce finished cloth. The Ziack plant will handle all other steps in the manufacture of finished bolts of material for women's suits and dresses. The site was picked due to buildings being available at Camp Bowie, the availability of water and labor and its location in the center of Texas' wool production, it was said.

**GROTTOES, VA.**—The Duplan Corp. plant here began work March 14 under a lay-off schedule which calls for the plant to work for two weeks and lay off one week. This marks the first reduction in production since the plant was established in 1938.

**NEWBERRY, S. C.**—McKoy-Helgeson Co. of Greenville, S. C., has been awarded the contract for construction of a 45-foot addition to the Oakland Plant of the Kendall Co. Work on the addition will start soon and machinery deliveries have been scheduled for August through December. A modernization program, to be completed by January, 1950, will consist of the replacement

of existing equipment with the latest carding, spinning, spooling and warping equipment available and will also include the installation of air conditioning, modern heating, lighting and materials handling systems. The additional floor space of about 28,000 square feet will be required to accommodate the new machinery and will not represent an expansion in output. Cost of the program is estimated at \$1,500,000.

**RICHMOND, VA.**—Production in the rayon division of the E. I. du Pont de Nemours & Co. Amphill Plant here is to be reduced as a result of the general drop in demand in the textile market, it was announced by A. B. Walmsley, Jr., division manager. The plant produces viscose filament yarn for textiles and automobile tires, but the cut in output will affect only the former, it is reported.

**BLUE MOUNTAIN, ALA.**—Bids were to have been received March 15 for an addition to the Linen Thread Co., Inc. The expansion program will add 40,000 square feet of floor space in a three-story building. The plant operates 27,684 spindles in the production of cotton threads and twines.

**CLINTON, S. C.**—The engineering contract for a new \$200,000 cotton and cloth storage warehouse addition at Lydia Cotton Mills has been awarded to the McPherson Co. of Greenville, S. C. Fiske-Carter Construction Co. of Spartanburg and Greenville has been awarded the construction contract. The building will be of three floors of about 16,000 square feet each and will be located at the north end of the present cotton warehouse. The addition is a part of a long-range program for modernization and enlargement of facilities at Lydia. Other improvements already completed or underway are installation of air conditioning in the weave and cloth rooms, new toilet tower, renovation of existing toilet towers, and modernization of the waste house.

**CAMDEN, S. C.**—Boyle Construction Co. of Sumter, S. C., has been awarded the contract for grading and excavation work at the site of the new E. I. du Pont de Nemours & Co. plant to be erected near Camden. The fencing contract has been awarded Cyclone Fencing Co. of Columbia, S. C.

**BURLINGTON, N. C.**—Bids were received March 4 for construction of a decorative fabrics mill and warehouse here for Burlington Mills Corp. Contract for construction of the facility had not been awarded at a recent date.

**MONCKSCORNER, S. C.**—Berkshire Woolen Co. of Pittsfield, Mass., will open a plant here soon employing between 1,000 and 2,000 persons. Berkshire has signed a contract with the South Carolina Public Service Authority for a ten-year lease on the wartime Army Air Force intransit depot here, with a purchase option after three years occupancy.

**POINT PLEASANT, W. VA.**—Industrial Rayon Corp. will erect a new plant on the recently acquired Ohio River site near here upon the completion of a research program now under way which will result in greater operating efficiency and lower costs. Hiram S. Rivitz, chairman of the board, stated that "Our objective is to build a plant which

will be a real advance in the continuous process, with a lower capital cost per pound of annual production. We are making slow but real progress in our research and experimental work."

**STONEWALL, MISS.** — Lockwood Greene Engineers, Inc., Spartanburg, S. C., office is preparing plans and specifications for domestic water supply and sanitary sewer systems for the village of about 215 houses of the Erwin Cotton Mills Co. Plant No. 8 at Stonewall. Bids will be asked soon and the estimated cost of the project is \$200,000.

**PINE BLUFF, ARK.** — Plans and specifications for the new building of Pinecrest Cotton Mills, Inc., have been received and sent to contractors seeking to bid on the job. Seligman & Reid, Pine Bluff architects, will work with Hardy & Schumaker, Kansas City, Mo., architects, who are principals in the project. The building will be of one-story brick construction, with 90,000 square feet of floor space. The cost will be about \$1,500,000. The Pine Bluff Chamber of Commerce provided a 20-acre tract of land for the project.

**CHERRYVILLE, N. C.** — McKoy-Helgeson Co. of Greenville, S. C., has been awarded the contract for construction of an addition to Dora Yarn Mill Co. J. E. Sirrine Co. of Greenville is the architect-engineer for the project.

**GUNTERSVILLE, ALA.** — Two plants operated by M. Lowenstein & Sons, the Saratoga-Victory Mills at Gunterville and Albertville, were closed March 11 because production had sagged to such a point that manufacturing costs exceeded the market value of the goods produced. Combined, the two plants utilized 41,174 spindles and 1,148 looms in the production of satens, twills and fancies. Conditions in the future will determine action of the company with respect to the reopening of the plants, it was reported.

**MOUNT HOLLY, N. C.** — The annual report to stockholders of American Yarn & Processing Co., released recently, revealed that with the exception of an addition to Spun Fibers, Inc., at Whitnel, N. C., and small items of equipment for other plants, the company's expansion and rehabilitation program was completed in 1948. The report showed consolidated net sales of \$23,062,376 and consolidated earnings of \$1,756,472, after provision for income taxes for the year ended Dec. 31, 1948. After provision of \$60,000 preferred dividends, income was equivalent to \$4.25 per common share on 399,548 shares.

**ASHEBORO, N. C.** — Asheboro Weaving Corp., a subsidiary of Wm. Klopman & Sons of New York City, is reported to be operating "full schedules." A. T. Tuttle is superintendent of the plant.

**REIDSVILLE, N. C.** — Burlington Mills Corp. recently announced plans to suspend operations at its throwing plant here the

For additional Mill News,  
see "Before Closing Down"

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## MILL NEWS

latter part of March. Earlier in the month the plant was put on a two-day-a-week schedule.

**SPRAY, N. C.**—The supply purchasing department of Fieldcrest Mills has been moved from the general offices to the Nantucket Building here. The change was made in order to consolidate all purchasing, except raw materials, under one head and to permit members of the engineering department to concentrate on engineering activities.

**BURLINGTON, N. C.**—Belmont Weaving Plant, a unit of Burlington Mills Corp., located near here, is now working toward its second million man hours without a lost-time accident. The plant celebrated its first

million man-hour record recently at a plant-wide occasion when employees were awarded an Accident Prevention Flag by Herbert D. Leigh, Jr., resident engineer of the Liberty Mutual Insurance Co. of High Point, N. C. Receiving the flag were Florence Wood, plant nurse, the plant's first aid attendants and C. P. Sharpe, 1949 employee safety chairman.

**DALLAS, GA.**—The plant occupied by Dallas Mills, a division of A. D. Julliard & Co., Inc., until September of last year, is being offered for sale by Otto Feil, real estate dealer of Atlanta, Ga. The machinery already has been sold.

**GASTONIA, N. C.**—The Myrtle Plant of Textiles, Inc., has received delivery of a new Nasmith comb, the first one built in

England and shipped to this country since before the war. It was secured through John Hetherington & Sons, Inc.

**ELIZABETHTON, TENN.**—The American Bemberg Corp. March 8 reported the layoff of 700 employees in a 50 per cent production cutback. This brings the total of employees laid off at the plant in the past two months to 1,150. I. Rogosin, president, said he hoped the plant would return to full production soon.

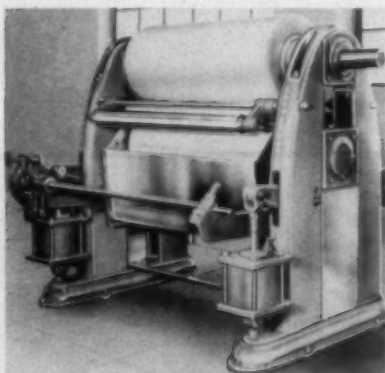
**SPEIGNER, ALA.**—Alabama Cotton Mills, operated by the State Department of Corrections and Institutions, will be closed by April 1, since it now is operating at a loss. Some of the convict mill operatives will be moved to the Kilby Cotton Mills prison at Montgomery.

# For The Textile Industry's Use

## EQUIPMENT - SUPPLIES - LITERATURE

### Butterworth Announces New Line Of Padders

H. W. Butterworth & Sons Co. has announced a newly-designed line of padders known as the Butterworth Bullet padders. These new two-roll and three-roll padders are reported to be more flexible, more interchangeable, and more basic than any padders now in use. The new machines have a streamlined, bullet-shaped frame. They are trim in appearance, compact in design and are extremely functional in operation. For example, it is now possible to convert a four-ton Butterworth Bullet padder into a 15-ton padder without tearing out an entire frame or without loss of operational time. No more separate pads are required for each operation. With the Butterworth Bullet two and three-roll padders, rolls in any diameter from 12 to 20 inches can be used. The new machines are also equipped to operate at any desired pressure from zero to 15 tons.



Interchangeability of rolls, depending on the type of operation desired, is one of the outstanding features of these new padders. In making a conversion, only rolls have to be changed, basic parts of the Bullet padders remain the same. Among a few of the features to be found on the new machines

are: simplified controls; pressure ranges from zero to 15 tons; heavy spherical roller bearings of the adapter type which hold rolls in fixed position; efficient, easy to reach lubrication system. The two-roll and three-roll Bullet padders are adaptable for light or heavy-duty operation. The multiplicity of operations now possible with these new Butterworth machines is considered by the builder to be a major step in finishing plant economy.

### New York Board Approves Monsanto Flame Retardant

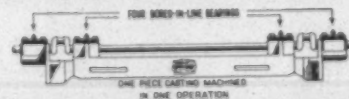
Approval of Monsanto Chemical Co.'s Rezgard A as a flame retardant finish for cotton and viscose rayon by the New York City Board of Standards and Appeals was announced last month by the company. Fabrics treated with Rezgard A passed tests conducted by the Better Fabrics Testing Bureau, it was disclosed by E. W. Gamble, director of the textile chemical department of Monsanto's Merrimac Division. The tests were made under the board requirements for determination of fire resistance. Rezgard A, an inexpensive white crystalline powder of the phosphate type, is applied to fabric in the mill. The cloth is immersed in a bath containing the flame retardant, squeezed through rolls and then dried. Four types of fabrics were tested: all-cotton sheeting, all-viscose rayon dress fabric, all-cotton monks cloth and all-cotton plush. The board recommended that each container in which Rezgard A is marketed by Monsanto shall be labeled or marked, "Approved by the Board of Standards and Appeals for use in New York City under Calendar No. 1089-47-SM."

The advertising department of the firm has prepared an attractive 80-page booklet, "Monsanto Plasticizers," which is available to interested users of plastics and plasticizers upon request. The booklet gives an unusually thorough and informative discussion

of the subject and should prove a valuable addition to the information file of those interested.

### Improved Spreader Developed By Hunt

The new Hunt spreader is said to feature several distinct improvements over former models of this well-known product of Hunt Machine Works, Inc. Four machined-in-line bearings on one rigid casting constitutes the greatest advantage in the new, patented Hunt spreader. Both the original Hunt spreader, and the improved 1949 model of this famous loom attachment, are the inventions of John O. Hunt. The new Hunt spreader requires no adjustment at the time of installation; nor will adjustment be required if in future it is desirable to replace bearing bushings, the firm states. Heavier weight of the new spreader, providing greater rigidity and sturdiness in the spreader-and-loom union, does not interfere with ample room for beams, heddle frames, or spring-type crank arms, it is claimed.



The four bored-in-line bearings were Hunt Machine Works' solution to the problem of improper alignment on installation and later replacement of bearing bushings. It has always been difficult to keep the loom-side bearings tight and in proper alignment. This difficulty is overcome in the new spreader by elimination of the loom-side bearings. Rigid union of spreader and loomsides holds gears in proper mesh at all times. Claims by Hunt Machine Works, Inc., for this streamlined version of the original spreader include reduced vibration, fewer breakdowns, lower maintenance cost, more picks-per-minute, and the production of higher quality cloth by looms where



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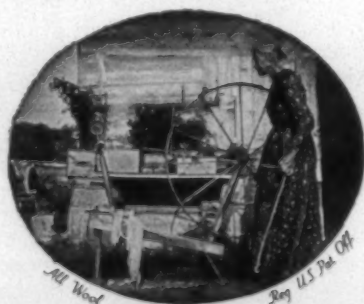
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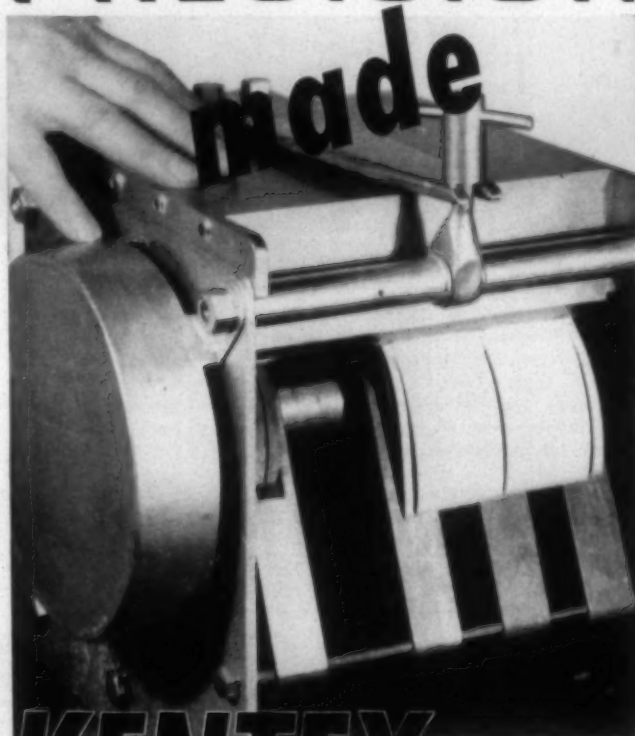
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### Houghton President Calls '48 Normal Year

The year 1948 will come to be looked upon as a fairly normal year, and 1949 sales should nearly equal those of the past year. These two predictions were made by A. E. Carpenter, president of E. F. Houghton & Co., manufacturer of industrial oils, chemicals and leathers, in his annual report to the stockholders. Mr. Carpenter reported a decrease in foreign sales for Houghton, but explained that overseas connections were unable to obtain the necessary import permits and dollar exchange to cover them. However, the company's income from foreign business was augmented through dividends and license fees obtained from the company's English and French subsidiaries, who are now manufacturing many Houghton products under home office formulae. This is also true in India, where manufacturing is now being done by Hardcastle, Waud & Co., according to Mr. Carpenter.

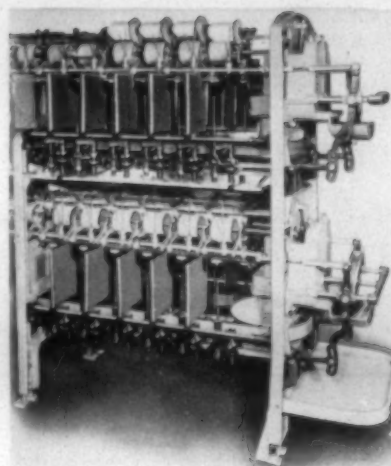
"Our research department released more new products during 1948 than in any other year," he reported, "and we will not reap the full benefit of sales on these products

until this year. What the net result will be depends entirely on how much new business we can obtain to compensate for falling off in sales to those industries where production has caught up with demand." The report also indicated that Houghton's plant facilities had been increased during the last year by the addition of an organic chemical plant and a pilot plant primarily for the manufacture of surface active agents. The following officers and directors were re-elected: A. E. Carpenter, president; George W. Pressell, executive vice-president; R. H. Patch, vice-president, operations; D. J. Richards, vice-president, sales; William F. McDonald, treasurer; E. A. Carpenter, secretary; C. P. Stocke, assistant secretary; H. B. Fox, L. D. Holland, H. E. Sanson and C. H. Butler, directors.

### Fletcher Works Offers New King-Spool Twister

After several years' research on both the machine to build the package, and the package itself, which has been called the King-Spool, Fletcher Works, Inc., is now prepared to offer to the industry the new King-Spool twister. The King-Spool itself is a bobbin with a cone head on a cylindrical tube, and can be made to any capacity conducive to good spinning.

Among advantages claimed for the Fletcher King-Spool twister are: (1) The King-Spool incorporates overend delivery without allowing the yarn to slough off. (2)

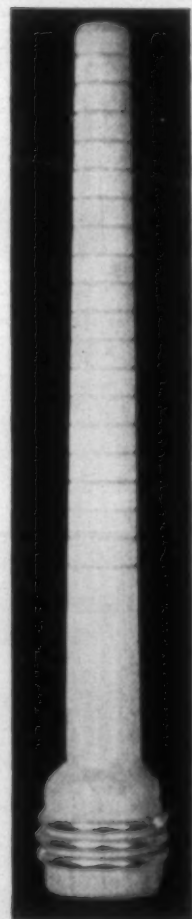


The King-Spool is designed so that a tail used in magazing may be employed. (3) The open end and open wind allow for easier and more thorough steaming than has heretofore been obtainable with the two-headed take-up bobbin. (4) Due to the fast traverse employed during the twisting of the yarn, there is no chance for the yarn to lap over, or fall off the open end, nor is there any opportunity to get "underwinds" at the cone shaped head. (5) A knock-off motion has also been incorporated in this new take-up bobbin development. Should the end be broken, or when the bobbin becomes full, the King-Spool is automatically lifted from the cork roll. (6) The Fletcher King-Spool twister can be made to accommodate a new permanent type durable molded plastic King-Spool, or a paper base expendable King-Spool for use in shipping or storing the yarn. (7) Many well known Fletcher features are, of course, included in this new twister, such as Oilwell or roller bearing spindles, adjustable swing tension, Unit Control, pressed steel cork rolls, collapsible guide eyes, etc.

### New Sequestering Agent Developed By Bersworth

Bersworth Chemical Co., Framingham, Mass., announces development of a new sequestering agent called Versene Fe-3. This is said to be particularly effective in sequestering the trivalent iron that often exists as a chemical contaminant in solutions. The sequestering power of Versene Fe-3 for calcium and magnesium at a high pH is almost as great as the sequestering power of regular Versene, the firm claims. A Versene Fe-3 solution containing sequestered (i.e., non-ionic) ferric iron also has considerable sequestering action on calcium and magnesium. As an example of the sequestering action of the new product, ten cc. of Versene Fe-3 sequesters 167 mg. of ferric iron as well as 158 mg. of calcium at a pH of seven.

The sequestering power of both Versene and Versene Fe-3 varies with the pH of the solution. Versene Fe-3 is about twice as effective as regular Versene in sequestering trivalent iron at pH 12 and is about three times as effective at pH seven. Trivalent iron in water and other aqueous solutions has always caused trouble in the preparation of textiles. Until the discovery of Versene Fe-



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3. Bersworth claims, there has never been any good sequestering or chelating agent capable of overcoming it. Therefore, it should prove of intense interest to manufacturing and experimental chemists.

### Davis & Furber Producing New Wool Spinning Frame

Davis & Furber Machine Co. claims greater production and lower spinning costs through use of its new wool spinning frame—Simplex Model F. The firm is now accepting orders for the new frame which features new mechanical and lubricating developments. Deliveries can be made within a few months of receipt of orders, it is said. Listed among features of the new frame are: safety-lock doors on the head-end which eliminate the possibility of the machine being started while work is underway within the head; a selection of only 19 change gears which are all interchangeable from one drive to another; independent twister-tube and spindle-drives permitting changes to be made without disturbance; a prelubricated clutch; oilite bearings for both the drawing and delivery roll stands and for twister tube; one-shot lubricating systems; aluminum alloy roller beams, ring rails and spindle rails which lessen weight and stiffen intermediate section of frame. Actuated by two micro switches, the mechanism starts automatically upon completion of a set of bobbins and shuts off the frame as well as itself. A tying-in bunch is formed automatically at the start of each set of bobbins, the firm states.

### Glyco Reprint Describes Non-ionic Surface Agents

Non-ionic surface active agents in general and glycol and polyglycol esters of fatty acids are described in a reprint issued by the Glyco Products Co., Inc. These products are interesting, emulsifying, dispersing, stabilizing and plasticizing agents. Their unusual solubilities in water and certain non-aqueous media makes them very versatile; some are insoluble in water. The higher melting members of this series are wax-like and dispersible in water. The stability of certain of these toward hard water and salt solutions is generally greater than anionic and cationic agents, it is claimed. Essentially neutral, they may, however, be adjusted within wide limits of pH without necessarily losing their usefulness. A full page table of physical properties of these chemicals is included.

### Honeywell To Acquire Valve Company Assets

Minneapolis-Honeywell Regulator Co. has announced that it has entered an agreement for the acquisition of the assets of the H. Belfield Co., manufacturer of control valves. Harold W. Sweatt, Honeywell president, said that Howard L. Murray, president of Belfield, would be elected a vice-president of Minneapolis-Honeywell and would be in charge of the new acquisition which will be known as the Belfield Valve Division of Minneapolis-Honeywell. The Belfield company, occupying a five-story building in Philadelphia, manufactures certain types of



## LET'S GET DOWN TO BRASS TACKS ABOUT HEDDLES

**O**R maybe you're the type who prefers to "talk turkey." In any event it adds up to the same thing when it comes to that all important little gadget we call a heddle.

It's a *little* gadget, it's true, but mighty important when it comes to figuring *big* profits. Pioneer heddles are demonstrably superior. They last longer. They do their job day and night, day in and day out with an absolute minimum of attention.

Let us prove our statements on your looms. Just write, wire or phone for a mill-experienced Pioneer representative.



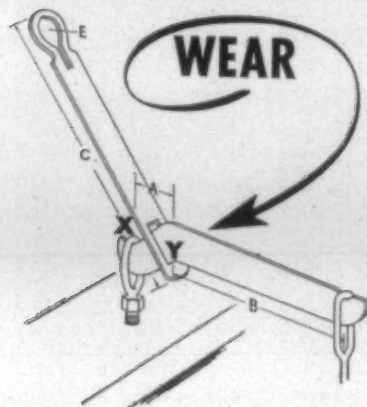
### NATION'S LEADING MANUFACTURERS OF COTTON HARNESS

|                   |                        |                              |
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| HEDDLES<br>FRAMES | COTTON LOOM<br>HARNESS | REEDS FOR<br>ALL WEAVES      |
| FRAME PARTS       | MAIL EYE<br>HARNESS    | COMBS OF ALL<br>DESCRIPTIONS |
| SALVAGES          |                        |                              |

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**HEDDLE and REED COMPANY, Inc.**  
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## It pays to know the whereabouts of



**WHAT** you don't know CAN hurt you! It can be extremely painful. Excessive wear of Stirrups and Levers in your drafting assemblies, especially when *not* noticed, prevents **GOOD SPINNING**.

For example, excessive wear at points "X" and "Y" above, often unseen, will destroy proper weighting ratios. Careful inspection of *stirrups, levers and lever screws* should be made regularly, and worn parts replaced immediately.

DIXON makes a large line of weighting appliances designed to function perfectly and produced in volume. The savings effected by this volume production are passed along to you. Order your parts from Dixon now and compare for quality and price.

### DIXON Manufactures:

- 1. More than 350 different stirrups, each with varying lengths—"C"—and special head openings—"E"—to properly fit over and lock on saddles.
- 2. More than 275 different levers with varying lengths—"B" and "A"—to allow for any desired leverage.
- 3. Over 35 different lever screws with varying diameters, threads per inch and loop lengths.

Quick delivery of spare parts is possible in most cases.

*Be sure you know your saddle assemblies are doing their job.*

*"It Costs so little and saves so much"*

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P.O. Box 745 Columbus, Ga.

## FOR THE TEXTILE INDUSTRY'S USE—

automatic control valves not previously made by the Honeywell company.

Products of the division will be distributed nationally to the trade generally through Honeywell branch offices in this country and abroad through its foreign subsidiaries, it was said. In addition, the new acquisition will enable Honeywell to supply its own control valves for application in connection with industrial controlling instruments of the type made by the company and its Brown Instruments division. The valves made by Belfield also will be applied to the automatic control systems made by Honeywell for use in heating and air conditioning installations. All personnel of Belfield will continue with the company in their same capacities.

## Moisture Control Device Fitted By Machinery Firm

The James Hunter Machine Co. announces that the Fielden Drimeter, a moisture control instrument, is available on its cloth dryers as an optional accessory. Stating that the decision to recommend and install Fielden instruments on their machines followed careful testing, James H. Hunter, vice-president, said, "Tests show that the Drimeter continuously and instantaneously indicates the moisture content of fabrics within the limits of about a plus or minus of one per cent. The Fielden control unit will vary the machine speed to maintain the moisture content to these limits automatically. Mills which have the meter in operation tell us that elimination of overdrying has improved quality, reduced costs, and increased production."

## Dillon Universal Tester Described In Bulletin

Ultra-precision in four individual ranges permits the operator of the Dillon multi-range universal tester to obtain close readings on its eight-inch dial. The scale is available in ounces, tenths pound, or kilos, four divisions each, with scale in different colors. A new bulletin M on this instrument has been issued by the manufacturer, W. C. Dillon & Co., Inc., and is available on request. Full description of the simple operation of the tester, with photographs of all parts, make this one of the most informative bulletins yet issued. This moderately priced tester will accurately test paper, thread, fabrics, plastics, springs, film, cord, leather, wire, resins, adhesives, glass, wood, ceramics, cardboard, felt, bakelite, insulation—virtually any material light enough to fall within the range of its four scales, the company claims. Net weight of tester is 170 pounds; height 64 inches. A sturdy metal stand is included. Entire assembly is finished in polished chromium and gray crackle.

## Durable Water Repellent Developed By Warwick

A new and improved durable water repellent, Durable Norane W, for use on all-wool and wool blend fabrics, has been developed by the Warwick Chemical Division

of the Sun Chemical Corp., according to Al Leitstein, general manager of the featured fabric finishes division of the firm. Mr. Leitstein pointed out that, from the standpoint of the manufacturer, the process offers other benefits in addition to durable water-repellency. "It can be applied, so as to add body to a fabric or if desired, to add slickness to a hard fabric," he said, "and it can also be applied with practically no effect on the 'hand' or the appearance of the fabric." Durable Norane W, according to Mr. Leitstein, also makes fabrics resistant to non-oily spots and stains, and adds crease and wear resistance. Efficient application can be made by any modern finishing plant or sponger.

"Garments made from Durable Norane W processed fabrics," Mr. Leitstein said, "offer exceptional promotional opportunities to the retailer. The process adds that 'more for my money' element that so many consumers are demanding. For years our firm has believed in and promoted water-repellent garments for all-weather wear. Now, with Durable Norane W, that all-weather aspect can apply to woolen outerwear, too." The Warwick Chemical Division of the Sun Chemical Corp. also makes Impregnole renewable water repellent and Durable Norane water repellent. All Impregnole, Durable Norane and Durable Norane W processed fabrics are tested and approved for water repellency in the firm's laboratories under its Laboratory Certification plan.

## Allis-Chalmers Offers New Speed Control Item

An economical and efficient form of speed control newly developed by Allis-Chalmers engineers for applications requiring frequent speed changes or for making adjustments without shutting down the drive is now being employed for the first time in textile plants. The combination consists of a new Vari-Pitch automatic sheave, companion sheave, wide range Texrope belts and Texslide motor base. It is said to assure easier and smoother starting and is being used for motion control speed change ratios up to two to one.

Desired speed variances of the driven machine are quickly obtained by simply turning the adjusting screw on the Texslide motor base with any commercial wrench. For increased speed, the motor is moved toward



the driven machine; to decrease the speed, the motor is moved away from the driven machine. Adjustment is only a matter of seconds compared to ten to 15 minutes required to vary the speed of a stationary control sheave, users state. The drive is particularly applicable to high starting torque since it permits the belts to ride at smaller pitch diameters during acceleration. It can be mounted at almost any angle when the Texslide motor base is in a horizontal position.

The new sheave utilizes the Vari-Pitch sheave principle of moving angular faced discs toward or away from each other, thereby changing the pitch diameter of the sheave as desired. An automatic belt tension stabilizer provides the proper sidewall pressure and belt tension regardless of the position of the belt in the groove. The new sheave has been developed and standardized to accommodate standard motors from three to 20 horsepower with motor speeds from 900 to 1,800 r.p.m.

### Increase Production With New Equipment

New equipment has been installed by Hilton-Davis Chemical Co. at its plant in Cincinnati, Ohio, to add to its line of products and to increase production of intermediates for dyes and pigments used in the textile and other industries.

James F. Thompson, vice-president in charge of production, has announced installation of a 60-plate fractionating still for separating alkyated anilines, substantially increasing the output of these intermediates. Also recently put into operation were four large reducers and alkylators to produce the intermediates used in the manufacture of fast color bases, naphthols, dyes and pigments. A new stainless steel nitrator, serviced by a large new refrigerating unit, is among equipment currently in process of installation. Mr. Thompson disclosed that production has been increased in stable salts and fast color bases for textile printing.

### Gould Offers Handbook On Battery Technology

The Gould Storage Battery Corp. announces a major technical contribution to battery purchasers, users, and maintenance men, in the form of a new free 40-page pocket-size handbook of instructions and engineering data on the care of motive-power batteries. The handbook is divided into four sections, Care and Operation; Maintenance and Repairs; Parts; and Technical Data. It is prefaced by two double-page spreads giving exploded views of the tape-insulated and mat-insulated types of batteries currently so widely used. Each part of the battery is clearly shown in relation to the others, and is keyed to descriptive text and instructions which follow.

### U. S. Testing Co. Opens Radioactive Isotope Lab

The United States Testing Co., Inc., Hoboken, N. J., has announced the opening of a new radioactive isotope laboratory. This laboratory is designed to bring this new tool for research within reach of small and me-

## Moretex 3S\* Size

Moretex 3S is a synthetic product which combines chemically with starches, gums, and gelatins to form a stable mix, which insures:

**Uniform Sizing  
Better Adhesion  
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Smoother Yarn  
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### Easily Removed

Moretex 3S Sizings are easily removed by medium temperature washings.

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## FOR THE TEXTILE INDUSTRY'S USE—

dium sized businesses which cannot afford to build a proper laboratory of their own until such time as the use of radioisotopes may have particular application to their field. The new laboratory will be under the direction of Dr. T. S. Taylor and supervised by J. J. Pescatore, who was trained at the Oak Ridge Institute of Nuclear Studies, conducted by the Atomic Energy Commission at Oak Ridge, Tenn.

A few of the practical applications of radioactive isotopes tracers that have been used in applied research studies are: (1) Measurement of thickness and distribution of a coating such as inks, paints, dyes and plastic films to one-millionth of an inch. (2) Friction study—the measurement of material loss of ball bearings, piston rings, and other motor parts to 100 billionth of an ounce. (3) Study of distribution and breakdown of lubricants alone or in conjunction with friction study of metals. (4) Measurement of thickness of a coating on fabric or yarn, indicating uniformity of distribution. (5) Study of processes involved in molecular formation and exchanges; diffusion in liquids, interaction among gases, liquids and solids; catalytic action; solubility of materials; complex intermediary reactions.

### Develop New Method For Identifying Rayon Cakes

An improved method of identifying rayon yarn sold in cake form has been worked out by American Viscose Corp. in conjunction with the Markem Machine Co. of Keene, N. H. The new identification consists of an indelible description printed on the new disposable paper cover recently adopted by Avisco. Identifying rayon yarn in cakes has always been a problem, the company explained, since the cakes must pass through a variety of chemical treatments and washing operations before they are packed and shipped. Then after receipt by the customer, cakes are often subject to further treatments, such as tinting or dyeing, before they are rewound into rigid packages. Under the old

system, in which a lacing thread of distinctive color is used, each of these steps introduced opportunities for error, and the closest possible supervision was needed to assure accurate identification.



The new system promises to eliminate mistakes in identification, because the printed cover is applied as soon as possible after the cake is withdrawn from the spinning box, and carries along a full description of the yarn through all the numerous steps of cake processing. In addition to its primary function of identification, the printed cover has the added advantage of showing clearly when the cake is right side up. This is an important point as cakes wind more efficiently when placed in the proper position. The new disposable paper covers are manufactured by a special machine, engineered and built for the purpose by Avisco engineers. The new printed identification has been made possible by the addition of a high-speed printing head on the machine, with facilities for quick shift of type to accommodate whatever description of yarn is being produced.

The first printed disposable cake covers to be produced on a commercial scale were used recently with shipments from the Roanoke, Va., plant of American Viscose. The disposable paper cover, an exclusive Avisco feature, was adopted last Summer for use of rayon yarn sold in cake form. It eliminates the five-cent deposit, with all the as-

sociated handling and bookkeeping required with the returnable knitted covers previously standard. Introduction of the disposable paper cover has given added impetus to the sale of rayon yarn in cakes, the form in which it comes from the spinning pots. More than a quarter of Avisco's yarn production is now sold in this package. Cakes cost less than other packages, such as cones, skeins and beams, because rewinding is eliminated at the rayon plant. This minimum handling also provides the mills with a cleaner yarn, it is claimed.

Avisco also announced plans to expand its Sylvania cellophane production at its Fredericksburg, Va., plant to 100,000,000 pounds a year. This expansion will double the present production of Sylvania cellophane and make Sylvania's Fredericksburg plant the largest cellophane plant in the world. Increased production will be achieved "as soon as the necessary equipment can be procured and installed," it was stated. Only by adding to an existing plant is it possible to increase the production of cellophane for sale at competitive prices. New techniques and improvements in processing and production methods developed by the Sylvania Division of American Viscose Corp. have made this expansion possible.

### Bijur Booklet Outlines Lubricating System

"Metered Lubrication for the Small Machine," Bulletin 4C, a new booklet on how to design a lubricating system into the small machine, is currently offered to the trade by Bijur Lubricating Corp. It shows how the small-scale Bijur system can be applied to solve the multiple oiling problems of small machines and isolated units of large machines. This is the system that has been successfully used on many types of small machines. The reader's attention is called particularly to the small-capacity lubricators pictured on the cover. Either automatic or one-shot, these units provide minute quantities of oil at frequent intervals under conditions of either continuous or intermittent service. Also of interest is the small-scale distribution system which is



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WE MANUFACTURE  
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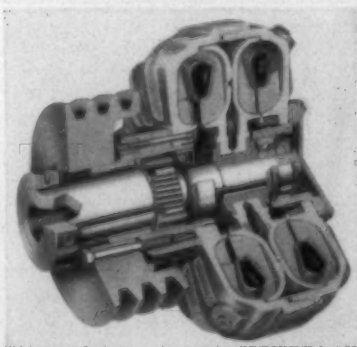
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designed for a maximum of effectiveness within a minimum of space. Meter-units for positive control of oil flow are smaller versions of the standard Bijur meter-unit, controlling oil feed down to a "fraction" of a drop.

### Fluid Drive Developed For Textile Machinery

A new hydro-sheave drive said to bring all the advantages of the automobile fluid drive to textile machinery is being introduced by Power Transmission Co. Compact and efficient, the drive is especially designed for V-belts, but may be used for any type drive. Particularly good where smooth starts are desired or where a large starting load must be overcome, the drive allows the mo-



tor to come up to almost full speed before the load is applied, it is claimed. The firm

states that acceleration of the load is uniform and no shocks or jolts can be transferred through the drive. Applications have been on cards, spinning frames, rewinding and similar drives. A descriptive bulletin, No. 145, may be obtained upon request to TEXTILE BULLETIN.

### Issue Revised Bulletin For Technical Service Manual

E. I. du Pont de Nemours & Co., Inc., recently issued a revised copy of its bulletin on scouring for inclusion in the Nylon Technical Service Manual. The revised bulletin, Scouring, should replace the bulletin of the same title in the Weaving, Broad section in the manual (section five, page 5.01). The bulletin describes methods used for the scouring of nylon woven fabrics.

### Glyco Brooklyn Facility Moved To Natrium, W. Va.

Glyco Products Co., Inc., announces that all of its Brooklyn, N. Y., manufacturing and research facilities have been finally transferred to its main plant at Natrium, W. Va. This location is about 85 miles south of Pittsburgh, Pa., and about 32 miles south of Wheeling, W. Va. Consolidation of these manufacturing and research facilities has resulted in more efficient and economical production. This more central location puts it in an improved position for receiving raw materials and shipping finished products. New stainless steel and glass-lined equipment recently installed for the manufacture

of polyoxyethylene stearates and glyceryl monostearates is of the most recent design and of sufficiently large capacity to take care of greatly expanded demands. These types of emulsifiers and stabilizers are used in the textile industry.

### Employee Suggestion Plans Analyzed In New Report

Executives responsible for the administration of employee suggestion plans are unanimously agreed that a continuous publicity campaign is a necessity for a successful suggestion program. This agreement on publicity is one of the facts about suggestion plans uncovered by the Metropolitan Life Insurance Co.'s Policyholders Service Bureau during the preparation of the report, "Suggestion Plans for Employees," which has just been released. Prompt decisions on suggestions, both in making awards for acceptable suggestions and in putting the suggested changes into effect, are other prime necessities for a successful program, the report shows. In fact, many employees are more interested in seeing their suggestions put to use than they are in monetary rewards.

"Suggestion Plans for Employees," which was prepared as a service to companies which provide Metropolitan Group insurance programs for their employees, is designed to furnish executives with the information needed to initiate a suggestion plan, or to make improvements in an existing plan. The suggestion plans of 45 companies engaged in both manufacturing and non-

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Card Room Overseer*



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## FOR THE TEXTILE INDUSTRY'S USE—

manufacturing operations were analyzed during the preparation of this study. While the report was prepared primarily for Metropolitan Group policyholder companies, a limited extra supply is available. Executives may obtain copies by writing on their business stationery to the Policyholders Service Bureau, Metropolitan Life Insurance Co., 1 Madison Avenue, New York 10, N. Y.

## Revolving Apron Is New Attachment For Hysters

A revolving apron attachment which makes possible the turning over or dumping of lift truck loads by an hydraulic mechanism is now available for the Hyster 20 and 40 (2,000 and 4,000-pound capacity) lift trucks. Hydraulically controlled, a revolving head or turn-table on which conventional fork arms are mounted, turns 180 degrees in either direction from the center. Capacity loads of 1,725 pounds with the 20 and 3,650 pounds with the 40 may be efficiently turned with the device. An important feature of the revolving apron is that a special Load-Grab unit may be mounted on the turn-table of the 20 lift truck in place of regular fork arms. The Load-Grab, an attachment which side-squeezes loads with sufficient pressure to lift securely without the need of any type of pallet, has a number of potional, special-purpose arms which may be substituted for the standard load arms as desired. These particularized arms,

designed for handling such unit packages as bales, boxes, crates, drums, barrels, cartons, etc., when mounted on the revolving apron produce a great variety of combinations for the lifting, turning and tiring of many kinds of materials. Load capacity of the apron in conjunction with the special Load-Grab unit is 1,400 pounds.

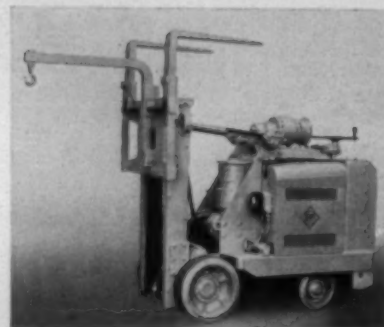
## All Cloverleaf-Freeland Units Now At Hazleton

The makers of Cloverleaf-Freeland bobbins, with plants in Hazleton and Honesdale, Pa., announce that as a further step of their streamlining and consolidation program, all offices are being moved to Hazleton, Pa. Previously, the executive office and production office only were located in Hazleton. Sales and purchasing will now be in Hazleton as well. This move is designed to produce greater efficiency and faster, better service.

## Attachment Provides Fork, Boom In One Unit

Industrial truck engineers are developing attachments whereby one truck is adaptable to many different kinds of load-handling operations. Latest built by Elwell-Parker Electric Co. is notable for its simplicity and the ease with which it can be converted from fork to boom. Truck's driver can change from either one to the other in a few minutes without using special tools.

The attachment is particularly useful in plants where loads are heavy and vary in



shape and size. Also, in lighter industries generally using fork trucks but having need at times for moving goods or equipment best carried by means of rope or cable sling suspended from a boom. Both fork and boom can be used together for some jobs requiring extra security in handling. The device has three main parts: a base member which is attached to the truck's lifting mechanism and which rides in the upright tilting columns; the fork tines suspended from a bar supported on the base; and the boom. The latter is a solid, allow-steel heat-treated bar bent at right angles near the middle of its length. That part which engages the base is machined for a sliding fit into brackets and a base socket where it is held vertically and firmly in place. When forks are to be used alone the boom is detached by slipping it out of its holder. When boom is required by itself the fork tines are swung upward and backward and held in this reversed position by means of pins in the brackets at top of the back-base. Tines clear truck mechanism at any working height. Boom in the model illustrated extends 36 inches horizontally from base. Fork tines are 36 inches long. Maximum height of lift of boom hook from floor is 30 to 145 inches. Maximum height of fork is 117 inches. Truck's rated capacity is 4,000 pounds.

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## Safety Council Offers Directory Of Posters

1949 *Directory of Occupational Safety Posters*, prepared by the National Safety Council, a 72-page directory containing 744 illustrations of two, three and four-color posters, classified under 15 sections, is now available. A convenient index that quickly locates posters on specific accident hazards. Posters range in size from 8½ by 11½ inches to ten by 12 feet. The directory may be obtained, at a small cost, from National Safety Council, 20 North Wacker Drive, Chicago 6, Ill.

## Factory Mutual Division Now Under New Name

A change in name to Factory Mutual Engineering Division is announced by the inspection department of the Associated Factory Mutual Fire Insurance Companies. There is no change in organization or methods. The division provides a wide range of engineering services related to industrial fire protection. Field engineers inspect insured plants periodically and act as advisors to management. Departments are organized for development of standards, adjustment of losses, valuations of manufac-

As a service to its readers, TEXTILE BULLETIN offers the attached postal cards for use in securing copies of new literature, as well as further particulars about new products, mentioned in "For The Textile Industry's Use" columns. There is no obligation — just fill in the reply card(s), mail to us, and your request(s) will be fulfilled as soon as possible.

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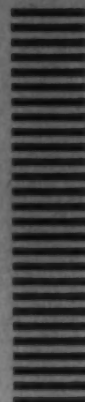
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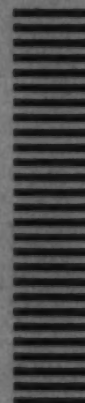
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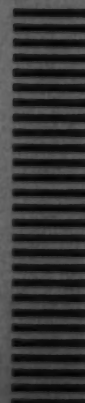
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turing properties, and the preparation of insurance plans. Research and testing are carried on by the Factory Mutual Laboratories, which operate as part of the engineering division. Headquarters are in Boston, and ten district offices are strategically located in industrial areas throughout the United States and Canada.

### New Reliance Bulletin Aid To Buyers Of Motors

Buyers of integral horsepower motors are offered a new eight-page booklet by the Reliance Electric & Engineering Co., in which are concisely presented the latest available selection data on the company's precision-built A-C motors. New torque and current standards recently adopted by N.E.M.A. for alternating current motors in Design Classes A, B, C, D and F are tabulated and explained. Included, too, are details on construction features and mounting dimensions of the Reliance motors now available in protected open, splash-proof, totally enclosed, fan-cooled, explosion-proof, and corrosion-resisting types. Copies of the bulletin, identified as B-2101, are available.

Smith Bros. Textile Machinery Co. of Gastonia, N. C., last month opened a second machine shop at 905 Bessemer City Highway, Gastonia, which is being used to re-vamp used textile machinery, rebuild worn-out spools, rings, bobbins and ring holders, as well as the reconditioning of shop equipment. The firm was organized several years ago by Fred, Guy and Lawrence Smith.

### American-LaFrance Offers New Type Extinguisher

A new dry chemical type fire extinguisher has been announced by American-LaFrance Corp. According to claims of the manufacturer, it has outstanding advantages such as longer range, longer duration of discharge, more complete discharge of the dry chemical contents, gas-tight, all-internal expelling gas connections, built-in safety disc, and is lighter in weight.

The dry chemical is non-toxic, non-corrosive, non-conductor of electricity, and will not freeze. The new unit has the Underwriters' Laboratories label and is rated B-1 and C-1. Recommended for flammable liquid and electrical fires and all similar industrial type risks it is claimed its fire extinguishing effectiveness is phenomenal. It is a hand portable unit identified as No. 30 Alfo Dry Chemical.

### Offer Bulletin On Dillon Industrial Thermometer

Interesting and informative is a new bulletin just issued on the Dillon stainless steel thermometer. The instrument covers practically every industrial use—with features not found in usual fluid or expansion types, it is claimed. It comes in five, three, 2¼ and one-inch dial sizes and stem lengths from four to 42 inches. Especially noteworthy is its large heat-resistant dial, easily read from considerable distance. Calibration is for maximum accuracy in Fahrenheit scale. Centigrade ranges are available. Over-all

metal construction eliminates breakage; unit is safely used under conditions of severe vibration, corrosion or shock, the firm states. It may be placed directly into hot materials without pre-heating; works equally well with liquids or gases; can be screwed into tanks, kettles, steam lines, exhaust systems, air ducts, boilers, refrigerators—or with cork, floated in open tanks. With long stem length, it checks deep vats where there is heat variation top and bottom.

### Textile Supply Firm Is Organized In Charlotte

T. E. Lucas Associates, Inc., of Charlotte, N. C., has recently been organized and chartered to carry on a general textile machinery, chemical and supply business. Authorized capital stock is \$100,000 with T. E. Lucas, Annie Lucas and Simons Lucas as subscribers to stock.

"How to Sweep Floors With a Cotton Mop" is a new four-page booklet issued by the G. H. Tennant Co. Listed are the advantages of cotton mop sweeping, describes methods of treating and cleaning a mop, and gives detailed instructions on correct techniques in sweeping.

Company presidents, treasurers and other executives will be interested in reading a book just published by Edmund Wright Ginsberg Corp., *Facts on Factoring*, which contributes a variety of timely and thought-provoking facts for executives responsible for financial and credit operations.

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## N. C. Textile School Receives Funds

During the past year, North Carolina textile companies contributed \$159,000 to the School of Textiles at North Carolina State College, according to a report by Dean Malcolm E. Campbell of the textile school before members of the North Carolina Textile Foundation at the annual meeting of the foundation Feb. 22 in Greensboro, N. C.

Recent contributions to the textile school listed by Dean Campbell in his report included a donation of \$25,000 from the Burlington Foundation, a trust set up by Burlington Mills Corp., to be used for the establishment of a textile library at the college; and a gift of \$15,000 from Stuart W. Cramer, Jr., and George B. Cramer of Charlotte, N. C., and Mrs. Katharine Cramer Angell of New Haven, Conn., children of the late Stuart W. Cramer of Cramerton and Charlotte, to be used for building and equipping a Stuart W. Cramer dining room at the school of textiles for faculty members and seniors. Dean Campbell also singled out for special praise funds donated during the past year by the Lineberger Foundation; Neuss, Hesslein & Co.; Standard Hosiery Mills; and a personal donation from W. J. Carter, vice-president of the J. P. Stevens Co., Inc.

David Clark of Charlotte, editor of TEXTILE BULLETIN and secretary of the foundation, reviewed the development of the foundation, pointing out that its main task is to supplement salaries of textile professors at the textile school. "At the present time State College has the best textile professors in the country," he declared. "This is mainly due to

the funds contributed from the foundation to help supplement teaching salaries."

All present officers of the foundation were re-elected: W. J. Carter of Greensboro, president; A. G. Myers of Gastonia, vice-president; W. H. Ruffin of Durham, treasurer; Mr. Clark, secretary; and Aaron B. Quinn of Greensboro, assistant secretary-treasurer. Three new directors to the foundation were elected: Clyde Gordon of Burlington, N. C., E. G. Spier of New York City, and George Walker.

## Bur-Mil Makes \$10,000 Gift To Clemson

A donation of \$10,000 to the Textile School of Clemson College from the Burlington Foundation, a trust established by Burlington Mills Corp., was announced March 8 by Dean Hugh M. Brown of the college and J. E. Garvin and Butler French of Burlington Mills. The gift was presented personally to Dean Brown at the college by Mr. Garvin, vice-president of the textile company, an alumnus of Clemson, and Mr. French, director of the company's apprentice program. Present plans are to use this donation to equip a dyeing and finishing laboratory in which actual productive processes and problems will be duplicated insofar as possible. Decision to use the money to set up a modern laboratory for the study of dyeing and finishing techniques was made after a series of conferences between Dean Brown and Professors Lindsay and McKenna of Clemson and representatives of the Burlington Foundation.

The rapid growth of textile finishing operations in the



Scenes from last month's meeting of the North Carolina Textile Foundation, Inc., at Greensboro. Dean Malcolm E. Campbell of the N. C. State College School of Textiles is flanked by various officials of educational supporting group.



South during the past few years makes the establishment of such a laboratory particularly timely, college officials stated. Further conferences between members of the textile staff of the college and representatives of Burlington Mills will be held to complete plans for installing the latest dyeing and finishing equipment in the laboratory. This donation to Clemson, Burlington Foundation officials stated, is in line with the foundation's policy of making gifts to colleges to improve existing facilities or establish needed ones. Primary consideration in making these donations, the foundation trustees pointed out, is the need of the institution in question and the uses to which the donation will be put.

### Textile Job Booklet In Second Edition

A new edition of the booklet, *Your Career*, a discussion of job opportunities in the cotton textile industry, has been announced by the publisher, Textile Information Service. The service reports over 30,000 copies of the first edition were distributed to members of the 1948 graduating classes last year and in addition several thousand individual requests were filled for other persons interested in the industry's opportunities. This year's printing will be 50,000 with members of the 1949 high school graduating classes being given first consideration and additional copies being available to individuals who write the Textile Information Service, 551 Fifth Avenue, New York 17, N. Y.

Schools in textile manufacturing areas will ordinarily get their supplies of the booklets through local textile mills, but in cases where there is no local mill, principals or superintendents may write direct to the information service, according to the announcement. The booklet covers such subjects as types of work, possible speed of promotion, education necessary and general working conditions. It is based on case studies in textile mills, in both northern and southern areas.

### Refresher Course In Textiles And Testing

The Summer refresher course in textiles and testing techniques will be offered for the 11th year, July 11-29, by the United States Testing Co. and under the supervision of James Giblin. The course offers a unique opportunity to study all phases of testing for textiles and related merchandise by lectures, demonstrations and laboratory practice work. Its staff technicians and facilities are made available for the course members.

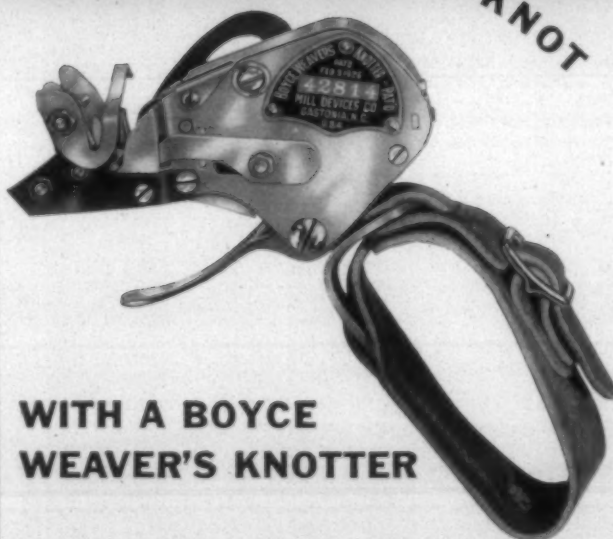
Mr. Giblin, head of the textile design department at the New Bedford (Mass.) Textile Institute states, "The work of the nine main divisions of the company, namely, textile testing, microscopy, chemistry, microbiology, leather, dye chemistry, detergency, research, and engineering will be represented in the three weeks study. Field trips to a textile finishing mill and a manufacturer of synthetic fibers

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will be conducted for those interested. It is gratifying to know so many people are interested in this course. Why, we've had students from India and Alaska, as well as our own 48 states represented. I find the course as challenging as the students do."

The number of students is limited, so each member may have the advantage of instruction and the opportunity to use much of the equipment. The company invites representatives to attend from the field of education, home economics and retailing, who have had some previous elementary textile training. Application forms and further information may be obtained from Consumer Service Division, United States Testing Co., Inc., 1415 Park Avenue, Hoboken, N. J.

### Student-Alumni Forum Discusses Industry

America's textile industry, revitalized since the war by large-scale modernization and research, offers varied and challenging career opportunities to young men and women, and the supply of textile graduates is far from meeting the demand now or in the foreseeable future. This was the consensus of an alumni-student forum last month at N. C. State College School of Textiles, Raleigh, the largest college level textile school in the nation. The industry, one of the first to emerge from the inflationary effects of the post-war period, is growing more complex and the specialized careers that can be made in it cover an amazingly wide range, it was pointed out.



College level textile schools may have record enrollments but an alumni-student forum at N. C. State College School of Textiles Feb. 26 brought out the fact that the industry can use an even greater number of graduates. Participants in the forum were (left to right): James G. Middleton of Wilmington, N. C.; Emmett Bringle of Covington, Tenn.; and Robert Freeman of New York City, students; Dean Malcolm E. Campbell of the textile school, who acted as moderator; Robert Dalton, Jr., of Charlotte, Whittin Machine Works; and John F. Matheson, president of Mooresville (N. C.) Cotton Mills.

The discussion brought out that there will be about 900 textile graduates this year at the nine college level textile schools, with N. C. State furnishing nearly a third of them, and this drew from John F. Matheson of Mooresville the comment: "Go ahead and really give us some college graduates. That's hardly enough to supply each cotton mill with one textile school grad." Mr. Matheson, a native of Cheraw, S. C., and head of the Mooresville (N. C.) Cotton Mills, was graduated from the textile school in 1927 and was the youngest cotton mill president in the nation at the age of 28. He said this year's crop of graduates would be absorbed

very readily and added the industry could probably use seven or eight times that many.

Robert Dalton, Jr., of Charlotte, N. C., was the second alumnus on the program. He has been out in the industry only a few years and represented the viewpoint of the more recent graduate. He said that when he first went to work in a cotton mill he discovered textile people were the "salt of the earth" and that he was quickly sold on a textile career and entered N. C. State. As a sales engineer for Whittin Machine Works he comes in contact with many mills. He said that today the growing complexity of the industry and the competitive years lying ahead offer a challenge to young men and women of imagination and initiative.

Why are so many young men and women choosing textile careers now, causing all the textile schools to cope with new peaks in enrollment? Emmett Bringle of Covington, Tenn., president of the junior class and editor of the college humor magazine, admitted frankly he was interested in making a good living for his wife and family, but said textiles had fascinated him since he first worked in a mill in his home town. Textiles, he said, satisfied a creative urge, which he first felt when his job in a mill required him to run samples from the raw cotton to the finished cloth. After working awhile in a mill Bringle won a scholarship—one of the many that the textile mills offer.

James G. Middleton of Wilmington is one of the increasing number of graduates from other colleges who are coming to the textile school as undergraduates. A Yale man, he said textiles attracted him because of a love of problem-solving or fitting of the pieces of a puzzle together and he felt the textile mill offered a challenge.

The participants agreed that textiles had come to the forefront in recent years as a progressive industry, and also that many modern mill communities offer a far more abundant life for one's family than the crowded industrial centers. A leader and pioneer in industries in this respect, the textile industry has contributed millions of dollars to help improve education and the college level textile schools. In North Carolina alone, more than \$1,000,000 has been raised among the mills for N. C. State and a second million is now the goal.

W. E. Debnam, Raleigh commentator, was master of ceremonies at the forum, which was sponsored by the textile school in co-operation with the industry-wide Textile Information Service and Radio Station W.P.T.F. Textile Student Robert Freeman, graduate of the City College of New York, prepared the script. Dean Malcolm E. Campbell of the textile school was moderator.

### Brown Textile Class To Begin May 31

An intensive course in the application of measuring and controlling instruments to textile processing will be started May 31 by the Brown Instrument Division of Minneapolis-Honeywell Regulator Co. The class will be conducted at the Brown School of Instrumentation at Philadelphia. The course, one of several added for the benefit of specific industries since Brown training school facilities were increased last year, will be confined to textile manufacturers' and processors' personnel, said M. J. Ladden, chief instructor. In addition to studies of instrument applications, the course will include maintenance and construction of thermometers, pressure gauges, hygrometers, pneumatic control and transmission, electric control, the textile Moist-o-Graph



and the electronic potentiometer. The company expects to further expand its services to industry by offering additional specialized instrumentation courses on other subjects later in the year.

### Cotton Council Holds Annual Parley

Endorsement of the principles of the Taft-Hartley Act and opposition to a legally imposed minimum wage for agriculture topped a list of recommendations adopted by the board of directors of the National Cotton Council at the organization's annual meeting March 7-9 in Los Angeles, Calif. In other resolutions the Cotton Council directors asked that commodities held or owned as collateral by the Commodity Credit Corp. be stored insofar as possible in privately owned storage facilities, and that authority of the C. C. C. be limited to providing storage facilities only in cases where private accommodations were not available.

Seeking better trade balances, the council's board of directors asked that a special division of the Department of Commerce be established to: (1) promote imports necessary if the United States is to function logically as the world's creditor nation, and (2) permit the people of cotton-consuming countries to be profitably employed and thereby secure dollars for normal two-way international commerce.

Retention of the present import quota on long-staple cotton at 45,656,420 pounds on a global basis for cotton  $1\frac{1}{8}$  to  $1\frac{3}{8}$  inches in staple was recommended by the council's foreign trade committee which also asked that the Department of Agriculture establish staple types for foreign long-staple cotton and make arrangements with the Bureau of Customs to see that cotton imported under this quota corresponds to the permitted length.

The foreign trade committee recommended that a license system be established by the Tariff Commission to secure equitable distribution of imports under quotas, and that provision be made to permit importation of additional quantities of extra long-staple cotton longer than  $1\frac{3}{8}$  inches in years when the total quota is insufficient to meet the industry's requirements. Broadening of credit facilities to permit financing of cotton on a short-term, self-liquidating basis to approved countries not presently eligible for aid through E. C. A., was also recommended. The directors also approved a recommendation that the foreign trade staff of the council be enlarged to include foreign representatives to study problems and opportunities of maintaining foreign outlets for American cotton. Council directors also approved a foreign trade committee resolution asking that the Commodity Credit Corp. be empowered to negotiate trading agreements to exchange cotton and cotton by-products and/or cotton textiles for strategic commodities needed in the United States, and that more attention be given to development of "East-West" trade in Europe during 1949.

Accepting the recommendations of the committee on sales promotion, the directors voted to continue co-operative cam-

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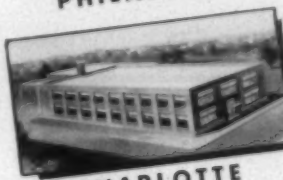
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But Ashworth Service goes beyond the manufacturing of a complete line of top quality card clothing products. It also includes a free advisory service regarding the correct wire and foundation for a given purpose and correct card settings and speeds; PLUS complete free card surveys with written reports which enable mills to plan repairs over a period with minimum loss of production time. We make our surveys regularly for many leading cotton mills, while our recommendations have enabled woolen mills, in some cases, to increase their card production as much as 30%.

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paings in behalf of cotton bags, cotton canvas awnings, cotton insulation and cotton rental services, and to endeavor to establish a co-operative campaign with the manufacturers of cotton wrapping paper. Continuance on the broadest possible scale was approved for council sales promotion campaigns in the wearing apparel and household fields.

Emphasizing the importance of research in production and marketing of cotton the directors approved recommendations urging that continuing emphasis be placed on securing full appropriations under the Research and Marketing Act of 1946 and the Bankhead-Flannagan Act for extension work. The group approved recommendations of the production and marketing committee which would continue the annual mechanization and cotton insect control conferences and advocated emphasis on mechanization research programs stressing weed control, defoliation, harvesting and economics. Support was also pledged to programs designed to increase ginning, compress and warehouse efficiencies.

The production and marketing committee also asked that: (1) continuing emphasis be given to evaluation of mill requirements for cotton by qualities, (2) the council's present work on obtaining commercial spinning tests of advanced strains of long staples be continued and expanded, (3) co-operation be continued with the various state and area lint identification programs, and (4) the council recommend to all U. S. organizations of cotton buyers and sellers, including cotton exchanges and regional shipper organizations, that they provide uniform trading rules relating to lightweight and heavyweight bales. Other production and marketing committee recommendations urged emphasis on research and education on the cleaning, preservation, grading and storage of cottonseed. The council also was urged to ask increased appropriation from Congress for cotton fiber and spinning testing services, and for additional classing services for the voluntary use of producers and ginners. Continuation and expansion of council studies on trends in the consumption of cotton, cottonseed and competing products, and in improvements of quality, in promotional efforts, and processing and merchandising methods was authorized

by the directors in approving the recommendations of the committee on utilization research.

Recommendations also called for an expanded program of technical service: (1) to encourage establishment of quality control and research laboratories in cotton processing establishments, (2) to point out the principal cotton research problems, (3) to focus greater research efforts on cotton problems with particular attention toward attracting the huge research potential of the chemical industry, and (4) to stimulate college research programs on lint and seed utilization. The utilization research committee asked the council to vigorously support legislation to establish a National Science Foundation and to co-operate in developing cotton research programs under such authorization.

A public relations program which would continue general editorial services and publicity and would emphasize projects designed to build understanding of the council's program within the cotton industry, was approved by the directors. The board also approved recommendations of the committee on public relations asking that "special public relations projects in furtherance of activities of the council's program divisions, and of its special committees, be developed and carried out on such an expanded scale as may be desirable and financially practical."

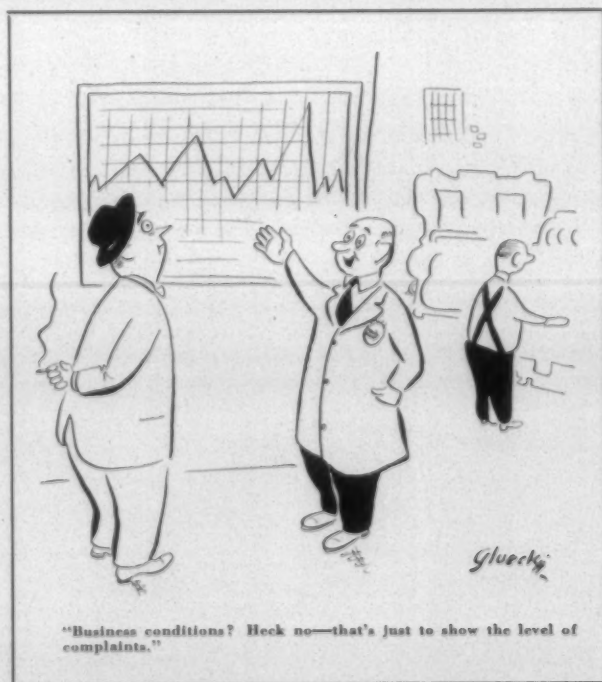
The council delegates voted to launch an immediate campaign to raise a minimum of one million dollars as an initial sum to carry out the work and purposes of the Oscar Johnston Foundation. The Johnston Foundation, set up in 1948 as a tribute to the founder of the National Cotton Council, was established with the purpose of promoting the consumption of American cotton. Funds for the foundation will be sought primarily from those who are not contributors to the council but nevertheless derive substantial business or other benefits from operation of the cotton industry.

Mr. Johnston, Scott, Miss., was re-elected chairman of the board of directors, and Harold A. Young of North Little Rock, Ark., was again chosen president of the council. All other officers were re-elected. These included A. L. Durand, Hobart, Okla., vice-president; L. T. Barringer, Memphis, Tenn., vice-president; H. L. Wingate, Macon, Ga., vice-president; Wm. Rhea Blake, Memphis, Tenn., executive vice-president; W. T. Wynn, Greenville, Miss., treasurer; Robert R. Coker, Hartsville, S. C., and Lamar Fleming, Houston, Tex., advisors to the board.

Chosen to the board of directors for 1949 were: Ginners—Harry S. Baker, Fresno, Calif.; Garner M. Lester, Jackson, Miss. Warehousemen—Claude T. Fuqua, Jr., Houston, Tex.; B. L. Anderson, Fort Worth, Tex.; Alonzo Bennett, Memphis; Francis P. Beatty, Charlotte, N. C.; and S. R. Nichols, Des Arc, Ark. Merchants—Charles W. Shepard, Jr., Gadsden, Ala.; Robert W. Dickey, Phoenix, Ariz.; Ben J. Williams, New Orleans, La.; Burris C. Jackson, Hillsboro, Tex.; and S. Y. West, Memphis. Spinners—A. K. Winget, Albemarle, N. C.; Fred W. Symmes, Greenville, S. C.; Charles C. Hertwig, Macon, Ga.; Hugh M. Comer, Sylacauga, Ala.; and Ernest Rees, Fayetteville, Tenn.

### R. M. A. Cotton Research Projects Outlined

Problems of the cotton industry are being studied from many angles under the Research and Marketing Act in the fiscal year 1948-49 by agencies of the U. S. Department of Agriculture, as well as by state agencies. New and wider utilization of cotton and its by-products that will help cotton



to meet the increasing competition from synthetic fibers, other materials and foreign cotton, is the objective of a large share of the R. M. A. research. But greater efficiency in marketing and in production also are receiving attention. Among the utilization studies are these: Research on the fundamental characteristics of cotton fibers, which may suggest entirely new uses; development of new and improved products from cotton fibers through mechanical processing and chemical treatments; improvement of cotton warp yarns for carpets; and improved resistance of cotton textiles to soiling.

R. M. A. studies pertaining to cotton follow closely the recommendations of the Cotton Advisory Committee and a cottonseed sub-committee. Most of the department's utilization research is directed by the Bureau of Agricultural and Industrial Chemistry at its Southern Regional Research Laboratory at New Orleans, La. A summary of some of these research projects follows:

*Fundamental characteristics of cotton fibers:* Studies of the fundamental characteristics of cotton fibers as a basis for developing new uses. Among the objectives, which seek to take advantage of the superior properties inherent in the cotton fiber and to improve cotton in qualities which are not outstanding, are these: (1) Obtain reliable data on the swelling of various types of cotton fibers in water. (2) Stabilize cotton fibers against weather damage by developing methods for eliminating or reducing the degrading effects of oxidation. (3) Determine the possibilities of chemical bonding of resins in and to cotton and the physical properties of the resulting fiber. (4) Improve elastic properties of cotton through a combination of swelling treatments and chemical modification of the fibers. (5) Estimate the maturity of cotton by the difference in dyeing capacities of mature (thick-walled) and immature (thin-walled) fibers.

*Better cotton products by chemical and mechanical processing:* A study of ways to increase the attractiveness and utility of cotton products by new methods of chemical and mechanical processing, and by development of new and improved cotton processing machinery and testing equipment. Among lines receiving attention are: (1) The effect of twist on weaving and on quality of woven fabrics. (2) Processing problems involved in blending cotton with other fibers, and what are best possibilities for increasing use of cotton by blending with other fibers. (3) Development of cotton fabrics and garments of better warmth retaining qualities. (4) Development of improved laminates with cotton as the filler. (5) Improved resistance of cotton bagging fabrics to insects and rodents through treatment with chemicals. (6) Production of water-resistant, swelling-type cotton clothing fabrics without added chemical treatment.

*Tensile strength of cotton fibers:* Research on improved equipment for testing the tensile strength of cotton fibers, and on inaccuracies due to variations in operator techniques, is being done under contract by Dr. K. L. Hertel of the



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**Deterioration of cotton fibers:** Investigations are being made by the National Bureau of Standards, under supervision of the Southern laboratory, of the possibility of using the infra-red rays to find out what happens chemically when the cellulose in cotton fibers deteriorates. Various methods of treating cotton fibers, which are opaque, so that the infra-red techniques may be used are being investigated.

**Improved resistance of cottons to soiling:** Special attention is being given to factors such as humidity, temperature, other environmental conditions, kinds of soiling material, types of soiling contact, yarn types, and fabric construction which aid or resist the adhesion of soil, or its removal. This research is being done under contract by the Institute of Textile Technology, Charlottesville, Va.

**Control of neps in making cotton textiles:** Investigations of what causes neps and of how their occurrence may be prevented or reduced, are being made under contract by the School of Textiles of North Carolina State College. It is hoped to develop and standardize satisfactory methods for determining new frequency in raw cotton stock, and to improve sampling procedures and predictions of yarn nep grade at certain steps in the manufacturing process.

**Cotton yarns in carpet warps:** Research on the improvement of cotton yarns for use in carpet warps is being done under contract at Lowell (Mass.) Textile Institute. Major emphasis is on increasing the uniformity of the warp threads, as well as their strength in relation to their bulk.

**Serviceability of cotton and other fabrics:** The comparative usefulness to families of various clothing and household fabrics made of cotton, and of combinations of cotton and other fibers, is being determined through serviceability tests by the Bureau of Human Nutrition and Home Economics, with co-operation from various state colleges. The bureau is also conducting a study of present and potential family utilization of clothing and household textiles. Basis of the study will be actual inventories of clothing and other house-

hold textiles held by families, their annual purchases, prices paid and factors which affect family practices.

**Handling and storing of cotton:** Receiving special attention is the development and promotion of more efficient methods, equipment and facilities for handling and storing of raw cotton. Time studies are being conducted in cotton warehouses for the purpose of obtaining data on man-hour requirements for performing the various warehousing operations using various types of equipment.

**A cotton industry cost study:** The first study on costs and margins to be done under contract is being conducted by the Ralph E. Loper Co. of Greenville, S. C., industrial-cost engineers. The firm has been awarded a \$45,000 contract by the Department of Agriculture to plan a model carded cotton yarn plant with 10,000 spindles, thereby providing certain standards of efficiency for the performance of each of the processing operations in all operating mills. A study and analysis of cost records of a representative number of firms in the industry also is being made, the purpose of which is to enable carded gray knitting cotton yarn mills to use the data to analyze the efficiency of their own operations. The study is to be completed by June 30, 1950.

**Reducing retail cost of textiles:** This project will study the possibilities of applying, in the retailing of textiles, the methods which have been so successful in reducing retail costs for foodstuffs, including consumer packaging and self-service retailing. Retailers and textile product manufacturers will co-operate in the study which may offer opportunities for consumer savings on cotton goods.

### Council Delegates Discuss Cotton Fabrics

Cotton fabrics of all types attracted a major share of the attention of delegates attending the annual meeting of the National Cotton Council early this month in Los Angeles, Calif. Cottons have made a sweeping change from a limited one-season fabric to year-round, around-the-clock fashions in sports, dress and utility wear, the 1,500 delegates and guests were told by Joseph L. Lanier of West Point, Ga., member of the council's sales promotion committee. The significant story in cotton fashion for 1949 is one of fabric developments, Mr. Lanier said. Heavy, yet cool, tweed textures which came to cotton last year will return as one of the leading newcomers to fabric lines. Waffle and fine wale piques continue to hold a leading position among fabrics in demand. Metallicized cottons are most important in the texture story, with new designs that are truly weaving wonders. Plaid fabrics are woven with both gold and silver plastic-coated metal threads, and brocaded designs reminiscent of oriental patterns. Throughout the fashion picture, cotton is playing a dominating role, he added.

Homeowners who have used canvas awnings for years to keep cool in Summer and prevent fading of draperies and rugs now have found that awning fabrics have many new adaptations which fit into modern architecture, W. N. Banks of Grantville, Ga., told the group. Mr. Banks said exterior designs of many new homes result in special problems of wind and shade control. Because of its flexibility, wide range of soft colors, and its long-lasting utility, canvas has proved ideal in overcoming these problems, thereby expanding the market for this cotton product, he added. Research conducted by the American Society of Heating and Ventilating Engineers, made available to the council, shows that





canvas awnings will reduce the amount of solar heat passing through windows by as much as 75 per cent, Mr. Banks told the convention. The council carries out a national sales promotion campaign for canvas awnings in co-operation with the Canvas Awning Institute.

More than three and a half million farms in the United States now use tarpaulins or other heavy canvas covers in all types of farming operations, according to Harry S. Baker Fresno, Calif., a member of the council's sales promotion committee. Referring to a recent national survey of tarpaulin uses on farms, Mr. Baker said these uses varied from catching prunes on California farms to covering rice in Louisiana. The cotton covers are used principally over farm produce and equipment, protecting them from weather damage and thereby turning farm losses into profits. Mr. Baker described a promotional campaign the council now is undertaking to expand the market for canvas covers. He pointed out that while there are more than 11 million tarps used annually on American farms, it is estimated that about seven million more could be used on farms which do not now use them and on farms, which could use additional protective covers.

Plans for a belt-wide cotton industry drive to recover a substantial portion of the potential 275,000-bale market for fertilizer bags were discussed by E. H. Agnew of Anderson, S. C. Cotton industry consumption of fertilizer is increasing, but the fertilizer manufacturer's use of cotton for packaging has declined steadily to a serious point demanding immediate action. Only 16,000 bales of raw cotton were consumed by the fertilizer industry in 1947, said Mr. Agnew. The price differential between cotton and paper is about \$2 a ton, and there is little doubt that 20 emptied

cotton bags are worth ten cents each in re-use value, both in farm operations and for some home applications, he continued. Mr. Agnew stated that the cotton industry's approach to the problem is based primarily upon the high salvage value advantage cotton holds over its competitors. He emphasized further that cotton possesses greater resistance to breakage, and claims that this factor alone more than offsets cotton's higher initial cost.

Production of cotton fabrics for bags recently has shown increases for the first time since 1943, Sen. N. C. Williamson of Lake Providence, La., declared. He credited a major promotion program as a principal factor in the favorable market trend. Senator Williamson, chairman of the council's sales promotion committee, described the largest sales campaign ever conducted in the cotton industry by interests ranging from growers through converters, commission houses and bag manufacturers. As a result of the campaign, he said, 20 per cent of a five-year decline in bag fabric usage was recovered in six months of last year.

A consumer preference survey in the children's and infants' apparel field to be conducted in 1949 by the Bureau of Agricultural Economics will offer the entire textile industry a wealth of valuable information on American buying habits, research authorities of the council forecast. The council representatives at the organization's annual meeting said that other preference surveys planned by the B. A. E. would include studies of fiber preferences in household textiles, and industrial preferences for cotton in uses such as awning, tents, tarpaulins, and insulation. The sum of \$100,000 has already been allocated for the work. Already B. A. E. has conducted surveys in fiber preferences in women's and misses' apparel items and a selected group of

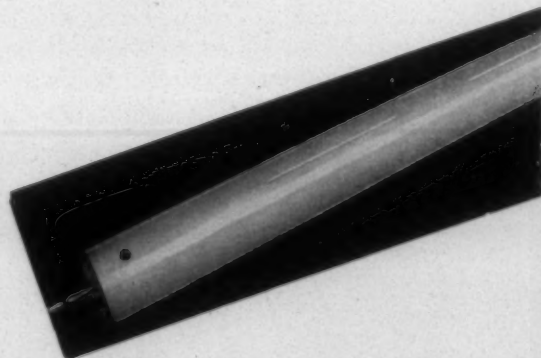


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household products, and in men's preferences for textile products. "Cotton and other textiles are becoming increasingly aware of the necessity for fully considering consumer likes and dislikes," a council analyst declared. "Today the consumer dictates his wants; no judge sits on a high bench to decide what consumers should have. It is his preferences which determine the products on sale in the store."

### Nylon Upholstery In New Automobiles

K. T. Keller, president of Chrysler Corp., said recently that a new kind of all-nylon fabric "superior in application, wear and appearance to anything so far developed" and two new nylon-faced fabrics will be used on some of the company's new models. They will be in addition to the very fine mohairs, worsteds and other materials also used on the new Plymouth, Dodge, De Soto and Chrysler cars, Mr. Keller said. The all-nylon fabric will be used initially on the company's new line of Chrysler Windsor and New Yorker sedans, with the nylon-faced materials available for interior trim on Chrysler and Plymouth convertibles.

Experimentation with all-nylon cloths was initiated in the Chrysler engineering laboratories five years ago, with each piece of newly-developed fabric being put to the most extreme tests to insure its quality. The finally accepted cloths were given fade tests on fade-ometer machines where the cloths were held stationary ten inches from bright carbon arc lights in temperatures of 130° F. for 50 hours. They were also twisted, pulled and stretched on specially designed machines to test their resistance and tensile strengths. In the frictional wear tests, the cloths had to survive 180 single rubs a minute for two hours at pressures of 1½ pounds.

Finally, to make sure that the colors would not rub off in contact with other objects, the cloths were put into 200 centimeters of distilled water at 100° F. and then placed in 175° ovens for two hours with a humidity condition of 30°. During this last test, the materials were subjected

from time to time, both under wet and dry conditions, to being rubbed under pressure to make sure that none of the color could come off. It was determined that fabrics that could withstand these tests would last the normal lifetime of a car. The first all-nylon fabrics to be used by Chrysler Corp. will be in one attractive weave, with the nylon-faced materials in two weaves.

Nylon automobile upholstery was seen in five show models at the General Motors Show, Waldorf-Astoria Hotel, New York City, Jan. 20-27. Extreme durability coupled with fine fabric styling offer in these new textures a superior car upholstery. Several times as much wear life can be expected as from similar weaves of other fibers, according to the manufacturer, because of nylon's exceptional abrasion resistance. Ease of cleaning and resistance to soiling are also cited as important. All fabrics shown were made with nylon staple fiber by Collins & Aikman Corp. of New York City.

### Experience Required For Loom Lubricating

John R. Crotty, associate director of research of Crompton & Knowles Loom Works, speaking recently before the Boston Section of the American Society of Lubrication Engineers, declared that the new approach to lubricating looms is as necessary today as the alloying of steel and irons was to the steel industry 50 years ago. The advent of higher speed, more intricate mechanisms and the continually increasing severity of conditions makes loom lubrication a much more difficult job today than it was back in the 1930s, he said. Despite these problems, Crompton & Knowles does not plan to issue a new set of lubrications, Mr. Crotty revealed, and advanced as the reason:

"We are thoroughly convinced that lubrication, like medical treatment, becomes hazardous when practiced without the requisite knowledge, skill and technical data. Lubricants have much in common with penicillin and the sulphadiazines. They are used most successfully when prescribed by experienced practitioners." He pointed out that the proper objective of a sane lubricant purchase specification should be "what performance will it give?"—not "what goes into it." Purchases based strictly on specifications are gradually yielding to purchases made on performance characteristics, he continued. He said that his company believes that performance standards should govern oil purchases.

### Kellogg Shipping Looms For Test

The M. W. Kellogg Co. has resumed shipments of looms to two friendly mills where the redesigned machines are currently being tested. One plant in Tennessee and another in Maine are running the looms. The firm is withholding final assembly and shipping plans, pending outcome of the tests. The first large-scale shipment of looms last year was recalled so mechanical changes could be made. One mill official, interpreting the loom's failure when it first was placed on sale, said the machine was too finely engineered and all machine tolerances were too close. Such tolerances cannot be held in a machine that takes the abuse caused by the pick motion, he said. Consequently, parts begin to separate. The warp let-off motion, which produced the first trouble with the Kellogg loom, has been completely redesigned, it is reported. A Kellogg engineer calls it a major improvement over all previous let-offs.



### Saco-Lowell Production Volume Increases

In spite of shortages, the production volume of Saco-Lowell Shops increased steadily during 1948, it was revealed recently by David F. Edwards, president, in a report to stockholders. Total 1948 production was almost double the physical output of 1941, which was a year of good volume by pre-war standards, he stated. The firm's backlog of orders is still large, particularly for certain types of machines, but during the latter part of 1948 shipments exceeded new orders, and, according to Mr. Edwards, "there is no reason to believe that this trend will be reversed during 1949."

Multiplying exchange controls and import-export restrictions continue to hamper and curtail business in foreign markets, he noted, explaining that the dollar shortage seems certain to affect export business acutely as the year advances.

"Volume of orders on hand at the end of the year was about 20 per cent below what it was at the beginning. There is still a steady inflow of new orders, but the volume is growing steadily less than the current rate of shipments, and there is a growing lack of balance in the backlog of orders for various types of machines, which will soon cause a corresponding lack of balance in our production schedules and in our utilization of plant capacity.

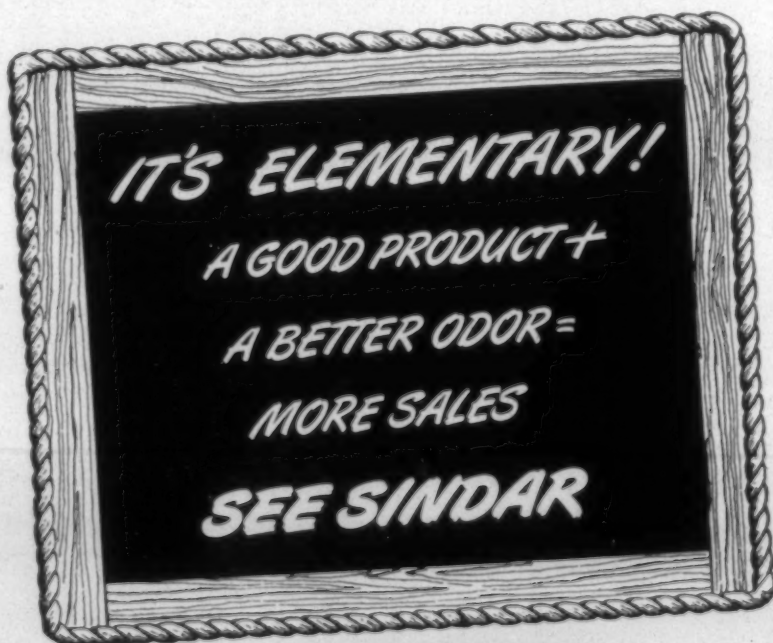
"In September, 1948, the company purchased for something less than \$600,000, a plant affiliated with Indian Motorcycle Co., located in Sanford, N. C.," Mr. Edwards states. "The firm also purchased several tracts of adjacent land and today owns a plant site totaling about 22 acres, well located with respect to railroad and highway transportation.

Although only four months have elapsed since the purchase of the Sanford plant, it is already beginning to show some profit from its operations on textile machinery products.

"Within another year, perhaps sooner, the volume of our production may decline considerably from the abnormally high level prevailing today. Even a moderate decline could bring us uncomfortably close to the break-even point of our operations. When declining volume begins to force us closer and closer to this higher break-even point, it will become imperative that management take advantage of all available means to lower the break-even point even though such means may require the transfer of some operations to one or more plants in the South." The report cited the general increase in employee wages and in costs of materials, but points to the decline in productivity of indirect labor as "the most important single cause" of higher overhead costs.

### Whitin 1948 Business Sets New High

Whitin Machine Works, Whitinsville, Mass., and its wholly-owned subsidiary, did its largest volume of business and had its greatest net income in history in 1948, the company reported at its recent annual meeting. Net income, after federal taxes, totaled \$5,905,179, or approximately \$16.78 a share on the 351,800 shares of stock outstanding. This compares with net profit of \$2,785,478, or \$7.91 a share in 1947. The firm earmarked \$500,000 for its unallocated contingency reserve, which now stands at \$2,500,000. The balance of \$4,349,779 is being transferred to



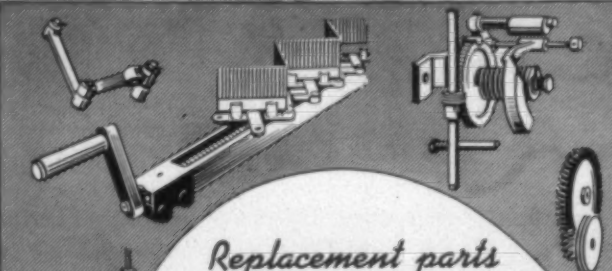
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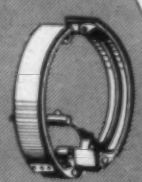
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surplus. E. Kent Swift, chairman of the board, and J. Hugh Bolton, president, in a joint statement to stockholders, said: "We have no bank indebtedness and are in good financial condition. Our shift in types of machines being produced is calling for the transfer of quite a few of our employees and our staff undoubtedly will be reduced in the coming months." All officers of the firm were re-elected.

### Wool Bureau Outlines Promotion Plan

The Wool Bureau, Inc., at a recent meeting with its newly organized wool textile committee outlined in specific detail the program of promotional and educational activities for 1949 for which approximately \$500,000 has been allocated. In addition, F. Eugene Ackerman, chairman of the executive committee, in outlining the program declared the Wool Bureau was ready to allocate \$50,000 toward an advertising campaign particularly on behalf of men's tropical worsteds if the industry would supply the balance needed for the proposed undertaking.

Urging the necessity for prompt and decisive action in an affirmative information program which will supply clothing manufacturers, retail merchants, and the public with facts, W. Francis FitzGerald, president of the bureau, emphasized that the organization is seeking the co-operation of different elements in the wool textile and clothing industries in a campaign which is directly in their self-interest. The program, he added, is not one to be undertaken in the future, but is one actively in operation. The bureau is not seeking funds. They are on hand, he said. What is sought is co-ordinated action which will utilize fully the tremendous resources for disseminating educational information which is at the disposal of all manufacturers and distributors of wool and wool products.

The program of the Wool Bureau now under way includes technological research, surveys of clothing and other wool apparel markets, publication of educational textbooks for retail sales staffs, and for youth organizations such as the Girl Scouts, publication of a bi-monthly bulletin for clothing and home economics teachers, and fashion news services specializing in news of both men's and women's wear. Offices for gathering such news will be established in London and Paris. Messrs. Ackerman and FitzGerald will leave for Europe May 5 to expedite this service. At this time, they will also endeavor to establish sources of trade news in fabrics and fashions which will be distributed to wool textile manufacturers and retail merchants.

### German Rayon Output Reported On Increase

Dr. Emil Ott, research director of Hercules Powder Co., declared recently that German rayon production, both viscose and acetate, is at a high level and growing. Addressing a luncheon meeting of the Synthetic Organic Chemical Manufacturers Association recently in New York City, Dr. Ott told the group not to underestimate the prowess of German chemistry. While it may never regain its place production-wise because of the lack of raw materials, he expressed the opinion that it is almost certain to be a prolific source of chemical specialties calling for a large amount of built-in chemistry, and for process developments which will be available for licensing. Dr. Ott, who visited Germany several months ago, explained that the rayon situation is limited mainly by availability of raw materials and a lack of

spinning facilities, some of which were located in what is now the Russian zone. He said that replacements for such facilities are now being constructed.

### International Silk Statutes Recommended

Recommended statutes for the International Silk Federation, to be set up May 30 at Zurich, Switz., where 29 prospective member nations will meet, were adopted recently by 20 delegates at a meeting of the provisional silk bureau in Paris, France. The meeting also decided to recommend to the Zurich congress the setting up of an international committee for propaganda which will co-ordinate the action of the different national committees. A permanent international silk bulletin to maintain contact between member nations will also be proposed. The setting up of a defense committee to protect the name of silk will also be recommended, and it is intended to unify legal protection and to extend it to all member countries.

### Du Pont Color Film Tells Story Of Nylon

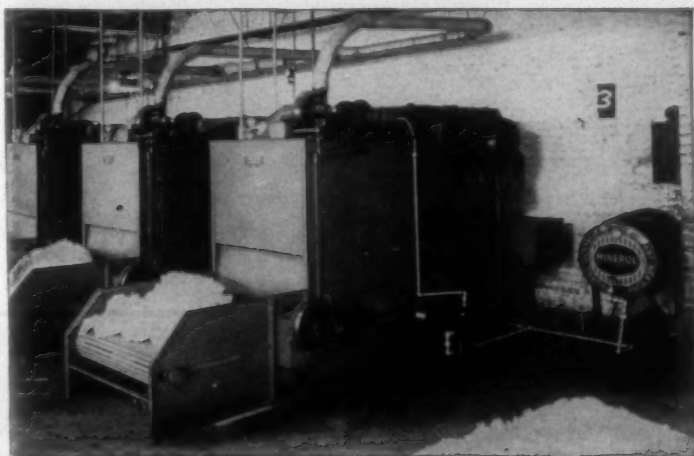
*This Is Nylon*, a 29-minute motion picture in color, is now available for distribution. The film combines a chemist's version of the nylon story in non-technical language and his wife's report of a fashion show where nylon holds the center of the stage. Produced in Hollywood for the nylon division of E. I. du Pont de Nemours & Co., it is designed primarily for educational purposes. Through the medium of a warm, appealing story, the film portrays

nylon's practical and aesthetic contributions to textiles in numerous applications, including many recent ones and many which are little known. Prints of *This Is Nylon*, a 16mm. film, are available to stores and other organizations by writing to Nylon Promotion, E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.

Civilian per capita textile fiber consumption in the United States amounted to 40.0 pounds in 1948, states *Rayon Organon*. This showed an increase of 1.9 pounds over 1947 and was surpassed only in the peak year of 1946 when 42.2 pounds per person were consumed. Total 1948 textile consumption amounted to 6,476,000,000 pounds, about the same figure that prevailed in 1947 and one per cent below that of 1946. Rayon and other man-made fibers were the only ones to show an increase of use to any significant degree. Cotton consumption, although still well above pre-war levels, declined five per cent from 1947. Scoured wool consumption held to about the same level, while silk showed a large percentage increase on a still relatively small volume.

In contrast to the decline in cotton and the leveling off of wool consumption, 1948 rayon usage continued to expand to a new record of 1,149,400,000 pounds, an increase of 16 per cent over the previous year. Filament yarn consumption amounted to 846,600,000 pounds and staple fiber consumption 302,800,000 pounds, increases of 15 and 18½ per cent, respectively. The growing importance of rayon to the country's economy is emphasized by comparison with pre-war, which shows that 1948 rayon consumption increased 2½ times over that during 1939.

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## Kenaf Seen As Substitute For Jute

Kenaf, a fiber crop new to the Western Hemisphere, is now being grown successfully in Cuba and El Salvador as a result of collaborative work between agricultural scientists of the United States and Latin American countries, the U. S. Department of Agriculture announced recently. The new source of fiber promises to be of unusual value, both commercially and strategically. It is an effective substitute for jute fiber (a principal source of cordage and bagging material), which normally is imported from India and Pakistan. Jute, during recent years, has been in increasingly short supply because of conditions in the producing areas of India and Pakistan, a major one being that more of their land is going into food crops.

With the expected commercialization of Kenaf, which is now in pilot plant production, several benefits will accrue to Western Hemisphere participants, according to the Office of Foreign Agricultural Relations which has been active in the development. One benefit is the greater security from having a fiber source close at hand. Another would be reflected in the additional opportunities for income in the Kenaf producing countries. Cuba, for example, which uses around \$20,000,000 worth of sugar bagging yearly, has found that the Kenaf season dovetails nicely with the sugar season, giving new opportunities for employment during what otherwise would be slack periods.

The importance to the United States of a fiber such as Kenaf is indicated by the great quantities of jute and jute products, including bags, cordage, and burlap, that are imported from the Far East. Most of the imports are received indirectly in the form of bags containing sugar, coffee, cacao, and other imported agricultural products. Raw fiber of the Kenaf type is important to United States manufacturers of hooked rugs, carpeting, twines, burlap, bags, electric cables, and oakum. For products such as these, Kenaf is an effective substitute for jute. Kenaf is a fast-growing fiber crop whose original home is India. It was selected for Western Hemisphere introduction after many other fiber crops had been studied and tested. It has been found fully competitive to jute fiber in yield, cost and strength. Its seed yields an oil comparable to cotton seed oil. One commercial grower in Cuba harvested nearly 100 acres of Kenaf in 1948 and sold the raw fiber to a manufacturer in the United States. Other growers in Cuba, Dominican Republic, Haiti and Guatemala are expressing interest in Kenaf, and other manufacturers in the United States are experimenting with it. Good markets are anticipated as the fiber gets into active production.

A number of Southern textile plants are featured in an article in the March, 1949, issue of *National Geographic Magazine* entitled "Dixie Spins the Wheel of Industry." Among the companies whose operations are described, or whose plants are illustrated, are: Celanese Corp. of America, Textron Southern, Inc., Graniteville Co., Chatham Mfg. Co., Springs Cotton Mills, Cone Mills Corp., the Stowe-Lineberger group of mills at Belmont, N. C., Pepperell Mfg. Co., nylon and Orlon plants of E. I. du Pont de Nemours & Co., Inc., Burlington Mills Corp., Dunean Mills, Deering, Milliken & Co., American Enka Corp., Avondale Mills, Southern Bleachery & Print Works, Georgia Processing Co., Mathews Mill and Chicopee Mfg. Corp.



## Two A. A. T. C. C. Sectional Meetings Set

The Piedmont Section of the American Association of Textile Chemists and Colorists will meet April 2 in Winston-Salem, N. C., at the Robert E. Lee Hotel. J. C. Whitt of the Century Division, Standard Hosiery Mills, Inc., Burlington, N. C., is general chairman in charge of the arrangements for this meeting. Two technical sessions will be held at 3 p. m. Charles A. Seibert of the E. I. du Pont de Nemours & Co., Inc., Wilmington, Del., will discuss before the cotton group, "What Is Satisfactory Washfastness and How May It Be Described and Measured?" Mr. Seibert, a former vice-president of the national association, is one of the outstanding textile colorists and enjoys a national reputation as one of the best known authorities on color fastness. John B. Neely, Burlington Mills Corp., Burlington, N. C., will lead the discussion following Mr. Seibert's address. The hosiery group will meet separately. W. H. Neal, senior vice-president of the Wachovia Bank & Trust Co., Winston-Salem, will address the members after the banquet which will be served at 7 p. m. He will have for his subject, "Where Do We Go From Here?"

The Southeastern Section of the American Association of Textile Chemists and Colorists will meet at the Ralston Hotel, Columbus, Ga., April 23. Charles A. Seibert of the Textile Research Department, E. I. du Pont de Nemours & Co., Inc., will speak to the meeting on the subject, "Fastness to Light and Washing of Dyed Cotton Fabrics." Mr. Seibert is chairman of the sub-committee on Fastness to Washing of the Executive Committee on Research of the national A. A. T. C. C. W. B. Amos of Fairforest Co., Eagle and Phenix

Division, Columbus, Ga., is program chairman for the meeting and is assisted in arrangements by Robert L. Horney of Columbus, a representative of the Ciba Co. C. Russell Gill, chairman of the section, will preside. The program will be preceded by a dinner at the Ralston Hotel.

The general research committee of the A. A. T. C. C. recently heard reports indicating that a number of the working subcommittees are bringing their work to conclusions of interest to those who are concerned with textiles. . . . The wash fastness committee announces that a new test in the well-known and widely distributed Launder-Ometer will shortly be available. The new test prescribes a change in the accessories used in the instrument and one test will produce color changes comparable with those resulting from five average commercial launderings. Physical damage to the textile material may also be predicted. Confirmatory tests are planned in representative laboratories before the new method is distributed.

The light fastness committee announces that the Bureau of Standards is now ready to distribute calibration papers to those desiring them. Their use provides a means of controlling Fade-Ometer exposures regardless of variations in electric current and other factors which have been responsible for unsatisfactory comparisons. . . . The committee on fastness to perspiration has submitted a new test method and new apparatus for conducting the test. Perspiration tests may be completed in six hours, with better agreement amongst themselves and more easily judged test pieces. The test will be official as soon as the apparatus is available to the trade which should be in a few months.

The committee on insect pests has completed a thorough



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review of testing methods. The present standard A. A. T. C. C. test method was demonstrated to produce duplicate results in different laboratories, and a numerical system for expressing results has been announced. A technical report covering this work will shortly appear in the technical press. . . . The committee on color is proceeding to set up standard testing procedures for testing dyes in a spectrophotometer.

Thirteen A. A. T. C. tests methods have been adopted as standard test methods by the American Standards Association. They will be so identified in the new A. A. T. C. C. Year Book which goes to press shortly. . . . Recognizing that standard nomenclature and methods of classification are as necessary as standard test methods in arriving at clear reports of tests, A. A. T. C. C. has set up a committee on nomenclature and classification. The following are members of this new committee: C. Z. Draves, chairman, John N. Dalton, Earl Edgerton, William A. Holst, Jules Labarthe, Alfred L. Peiker, Charles A. Seibert, Thomas R. Smith, A. Frank Tesi, Harold H. Taylor, Misses M. Antoinette Falcone, Laura E. Pratt and Mary P. Shelton.

## Trends In Vat Dyeing Outlined

Several significant trends are apparent in the general field of vat dyeing, according to an article in the January issue of *Dyelines and Bylines*, journal of the American Cyanamid Co., Calco Chemical Division. The article states, in part:

"Textile mills show an increasing willingness to invest very large sums of money in the newest models of well engineered stainless steel dyeing equipment. Batch methods are being replaced by continuous methods and automatic controls for tension, temperature, and liquid level are being used to increase the uniformity of product. Vat dyes are being applied to a variety of textiles; men's hosiery, denim yarns, wool knitting yarn, wool for use in automotive fabrics, knitted fabrics, fabrics made from blended fibers, and other textiles which formerly were dyed with colors of inferior fastness. An increasing amount of information on the behavior of vat dyes over a wide range of conditions is becoming available in such publications as Calco Technical Bulletin No. 793, Continuous Vat Dyeing, and No. 802, Application and Properties of Vat Dyes.

"The newer continuous methods for applying vat dyes to piece goods are based on pigment padding followed by reduction and fixation of the color in about ten to 30 seconds at temperatures of from 180° F. to 214° F. in such devices as the high temperature three-roll chemical padder, the Williams unit, or the low temperature three-roll chemical padder followed by a steamer.

"The simultaneous dyeing of up to 18 440-end warps 15,000 yards long in 5½ hours is accomplished by a combination of pigment padding, chemical padding, and steam fixation, producing results of excellent penetration, uniformity, and fastness. Machines have been devised to combine several other operations with vat dyeing from a creel of section beams, delivering dyed and slashed yarn on loom beams. Package and beam dyeing of yarn has reached such perfection that the more experienced and cumbersome process of stock dyeing has been eliminated in some mills.

"Tens of thousands of pounds of vat dyed wool have been used in the manufacture of automotive fabrics which have demonstrated their superlative qualities under the severe destructive conditions encountered in convertible type automobiles. Delicate pink and blue shades on knitting



yarns of wool are now produced with vat dyes and no longer do such shades fade badly on sun exposure or home washing.

"To produce vat dyes in sufficient quantity to meet the above applications and many others not mentioned here, has strained to the utmost, the manufacturing facilities of the American dye industry. While meeting this demand, constant research has been under way to improve quality, discover better dyes; and yet the moderate increase in selling prices of vat dyes necessitated by general economic conditions has held much below the average increase in commodity prices."

### Chemists Seek Purer Metal Solutions

Four student chemists in the graduate department of chemistry at Clark University, Worcester, Mass., working under the direction of Dr. Arthur E. Martell of the faculty, are conducting a research project involving the synthesis and study of a new series of chemical substances for altering the properties of metal solutions. The students are Albert E. Frost of East Douglas, Stanley Chaberek, Richard C. Brown and Robert C. Plumb, all of Worcester. All are ex-GI's with overseas service and all are seeking higher degrees in chemistry. The project is being supported in part by grant of funds, chemicals and equipment by F. C. Bersworth, who pioneered the industrial development of aliphatic poly amines and their chelating amino acid salts and derivatives. Bersworth is president of the Bersworth Chemical Co. of Framingham, Mass., producers of this type of sequestering and chelating agent for industry. The new substances under study at Clark University are called sequestering or chelating agents. They offset the undesirable properties of certain metals which occur as impurities in water and in many commercial preparations including liquid soaps, fats, oils, emulsions, sanitizing agents, textile and metal processing.

### New Type Bonded Fabric Announced

Wellington Sears Co. of New York, selling agent for the West Point (Ga.) Mfg. Co., has announced the addition of a new department to handle the sales and engineering of Lantuck, a new type of bonded fabric. The Lantuck sales department is headed by Denzil V. Probasco of the Wellington Sears engineering staff. Lantuck is being produced by the West Point Mfg. Co. at a new mill unit in Fairfax, Ala. The new product, identified by the trade name, Lantuck, represents a revolutionary advance in the development of industrial materials, and promises to be a major contribution to the industrial fabric field. The characteristics of Lantuck cause it to differ considerably from other bonded fabrics that have been introduced in the past.

Bonded fabrics, sometimes called non-woven fabrics because no spinning or weaving processes are required, are generally made by treating a web of fibers with a bonding substance to form a fibrous mat or sheet. As far as can be learned, however, no other bonded fabric has yet approached the unique qualities found in Lantuck. Previous bonded fabrics have been handicapped by the parallel arrangement of the fibers, with a resultant weakness in the filling, or crosswise, direction. Lantuck, on the other hand, has an almost completely random distribution of fibers. In other words, the direction in which the fibers point is irregular

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throughout the fabric. The random construction, therefore, gives the material equal strength in every direction—lengthwise, crosswise and diagonally.

A survey in 1947, undertaken jointly by Wellington Sears Co. and the research division of West Point Mfg. Co., revealed that the laminating industry was highly interested in the development of a bonded fabric of balanced strength to be used as a filler. The West Point research division succeeded within a very few weeks in producing a fiber web of the desired type, and a few months thereafter found a way to bond the fibers with resinous material without destroying the random characteristics of the original web. With the aid of resin suppliers, suitable bonding agents were found for applications in the plastic laminating industry.

Another important factor is that no single bonding agent has been selected as universal for Lantuck. This makes it possible to develop the bonding agent best suited for each case, and thus to engineer the product for its specific end use. This opens other fields for development. One application that shows great promise is the use of Lantuck as an interlining material in cold weather clothing. The same degree of warmth may be obtained with Lantuck using much less weight than that required with other materials commonly used for interlinings. Still other applications being investigated currently include coating with plastic or other materials, adaptation for use as backing and insulating materials, certain types of filters and various special industrial applications. Lantuck also appears to be as versatile in respect to fiber selection as it is in the case of different bonding agents. In addition to the cotton fibers used in the

earliest fabrics, success has been attained with rayon, acetate, and other fibers, both natural and man-made. Extensive research and development are continuing which promise to uncover a wide field of usefulness for this unusual new material.

Mr. Probasco, who is in charge of distribution of Lantuck, was intimately connected with the development of the new product. Prior to joining the Wellington Sears engineering staff in 1947, he had already been a member of the research division of West Point Mfg. Co. for four years, and was head of the fabric development department which took part in the creation of Lantuck. He had previously been associated with the American Viscose Corp. at Marcus Hook, Pa., and prior to that he was an associate professor at the Philadelphia Textile Institute.

### New Dyeing Technique For Narrow Braids

A new technique that makes it possible to quickly provide special custom dyed colors for narrow braid used in manufacture of men's Summer hats was announced recently by the O. Regen Mfg. Co. of New York. The technique was developed in association with American Cyanamid Co.'s textile resin department. The process makes use of pigment dyes which are resin bonded to the fabric. This replaces the customary method of yarn dyeing before weaving. Up to now as long as six weeks has been required for special color orders since the yarn had to be dyed first and then woven. The resin bonded pigment dye developed with Cyanamid makes it possible for the O. Regen Mfg. Co. to keep the

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woven braid on hand "in the greige," and they can consequently turn out special color variations very quickly. The use of resins also has the plus value of adding to the braid the substance and body formerly supplied by the addition of starch. Unlike starch, however, the resin is durable and does not become soggy in the rain, it is claimed. The braid used is largely woven from rayon yarn, but the resin bonded pigment dyeing is also used successfully on cotton and mixtures of cotton and rayon.

### Converters Call Cotton Best Fabric

United States converters processed approximately a yard and a half of cotton fabric in 1947 for every man, woman and child in the world, according to a survey of the industry just released by the National Cotton Council. According to the best available estimates, approximately 3,258,000,000 linear yards of cotton fabric produced in 1947—enough to encircle the earth some 130,320 times—were of the type usually handled by cotton converters instead of being sold direct by the mills.

Converters, it is estimated, handled more than three-fourths of the cotton goods printed and finished, about half of the fabrics plain dyed and finished, and slightly less than one-third of the goods bleached and white finished. Independent converters, the report estimates, handled the majority of print goods, about 40 per cent of fine goods and 30 per cent of the plain goods. In terms of cotton bale equivalents, converters processed about 1,800,000 bales. The independent converter, Cotton Council researchers explain, is a merchandiser of textile fabrics, purchasing in large quantities from mills and selling in smaller quantities to cutters, wholesalers and retailers. Since converters maintain close contact with customers, they are in a position to do an outstanding styling job and to help maintain quality standards.

Cotton accounts for more than two-thirds of the total volume of fabrics converted, the survey observed. Council interviewers, who compiled their report after personal interviews with converters during the Summer and Fall of 1948, noted that the industry preferred cotton because of its versatility, consistent quality, fashion, wide range of yarn sizes, because the heavy volume permits converters to finish goods in large lots, and because of the general stability of the cotton industry. Converters pointed out that cotton's wet strength is its outstanding advantage in the finishing industry because it permits cotton to be finished in continuous high-speed operations without a high percentage of damaged fabrics. They explained that cotton gives quality advantages not equaled by competing materials, that other materials do not have the utility of cotton, have not been able to match its durability or launderability at a competitive price, and that cotton is comfortable and has fashion prestige.

Cotton's competitive position can be strengthened, the converters told Cotton Council market analysts, through further research on crease resistance, drape, luster, slipperiness, hand, softness, smoothness, vivid colors, permanent finishes, production of long staple cotton and elimination of immature fibers. Converters say that high style promotions have been a major influence in expanding sales of cotton products. High style promotions have resulted in a demand for cotton as a year round fabric and have created cotton interest among manufacturers and converters of com-

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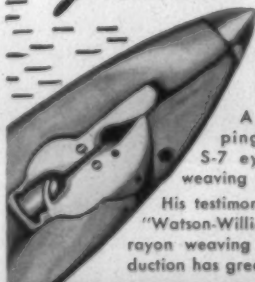
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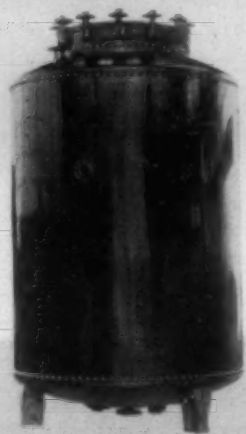


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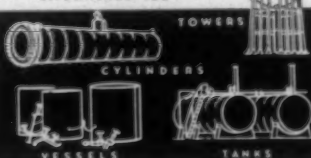
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peting fabrics. Greater emphasis on cotton high style promotions will help build brand names, create fashion interest among editorial writers, stimulate interest in new designs and patterns, and develop style consciousness in many market outlets for cotton, the converters reported.

### Booklet Covers Microbiological Deterioration

Deterioration of textiles and other organic materials because of mildew and rot is a major problem in the tropics, and one of considerable importance in many parts of the temperate zones. A summary of the information on this subject accumulated by the National Bureau of Standards in the past several years is presented in a new booklet, *Microbiological Deterioration of Organic Materials: Its Prevention and Methods of Test*, now available from the U. S. Government Printing Office.

This booklet contains a detailed review of the literature on the microbiological deterioration of organic and fibrous materials; a classification of a wide variety of fungicides according to their effectiveness for diverse use; and ratings of plastics, plasticizers, and related materials based on their susceptibility to mold growth. The most widely recognized test methods for evaluation of mildew resistance and rot resistance are listed, and representative problems incidental to the development of test methods for evaluating mildew resistance and developing mildew-resistant materials are given.

Miscellaneous Publication M188, *Microbiological Deterioration of Organic Materials: Its Prevention and Methods of Test*—39 large two-column pages, 18 illustrations—is obtainable from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at a cost of 25 cents a copy. Those in foreign countries interested in purchasing this publication should include approximately one-third extra with their remittance to cover mailing costs.

### Memorial Medal Committee is Appointed

The selection of the first Committee of Award of the Harold DeWitt Smith Memorial Medal has been announced by the American Society for Testing Materials. The membership of the award committee is as follows: H. J. Ball, chairman, Lowell Textile Institute; A. G. Ashcroft, Alexander Smith & Sons Carpet Co.; K. T. Hertel, University of Tennessee; G. H. Hotte, A. M. Tenney Associates, Inc.; A. G. Scroggie, E. I. du Pont de Nemours & Co., Inc.; and W. H. Whitcomb, secretary. This medal award will be made by A. S. T. M. Committee D-13 on Textile Materials to a recipient selected by the award committee for outstanding achievement in the textile field.

This memorial medal has been made possible through the generosity of Fabric Research Laboratories, Inc., Boston, Mass., who have sponsored the award. The memorial pays fitting tribute to Harold DeWitt Smith, who was widely known for the importance and variety of his contributions to the textile industry. The award is also intended to encourage and to afford public recognition of outstanding achievement in, or contributions to, the science of utilization of textile fibers. Suggestions for recipients of the award will be welcomed by the award committee and should be addressed to the chairman, Prof. H. J. Ball, Lowell Textile Institute, Lowell, Mass.



## Photo Exhibit Begins Southern Tour

The traveling photo exhibit of Textile Information Service, a collection of greatly enlarged photographs depicting the story of the modern textile industry, began an extended Southern tour this month. First it will be exhibited at the McKissick library of the University of South Carolina in Columbia from about the middle of March until April 10, and afterward it will be placed on exhibit at other educational institutions in the Carolinas. Later it is scheduled to go to Georgia and Alabama. The exhibit, made up largely of photographs taken by John Hugelmeyer, New York photographer, was brought to Columbia direct from Los Angeles, Calif., where it was shown during the annual meeting of the National Cotton Council March 7-9. The exhibit of 36 photographs has been presented before a number of trade bodies and art museums and colleges since its "premiere" at the annual convention of the American Cotton Manufacturers Association in New Orleans last Spring.

## Bell Re-elected By New York Textile Group

W. Ray Bell was re-elected president of the Association of Cotton Textile Merchants of New York at the organization meeting of the new board of directors held last month. Robert T. Stevens of J. P. Stevens & Co., Inc., was re-elected to the vice-presidency. John M. Hughlett of Dan River Mills, Inc., was elected treasurer. John L. Severance was re-elected secretary. The following were appointed to serve with the officers as an executive committee: Saul F. Dribben of Cone Export and Commission Co., Inc., Charles M. McLeod of Iselin-Jefferson Co., Inc., and Donald B. Tansill of Pepperell Mfg. Co., Inc.

## A. S. A. To Set Standards For Rayon Fabrics

Standards for rayon fabrics will be set up by the American Standards Association with the aid of the National Dry Goods Association and the American Viscose Corp. The task, one of the largest to be started by the A. S. A., will take upward of 18 months before issuance of the first standards, it is believed. Avisco has agreed to make available to the A. S. A. the data it has collected in a 19-year study for establishing the quality of rayon materials. The N. R. D. G. A. formally requested the A. S. A. to assume the work of setting up the performance standards, which once established, would enable buyers to specify qualities in terms of a set of performance standards based on the end-use of the fabric. The Avisco Crown Tested Plan will form the basis of the standardization work, it is reported. The Crown Tested Plan consists of minimum requirements for all types of fabrics including men's wear, women's wear and home furnishings. In each of these divisions minimum requirements are given separately for the different end-uses, such as sports wear, women's and men's suiting, lining, shorts, pajamas, etc.

The new Federal Trade Commission rules, written into the trade practice code of the rayon, nylon and silk converting industry, have been hailed by the Textile Distributors Institute as the "greatest single advancement toward a firm, stabilized industry and market that has yet been achieved." Two provisions which have evoked the most comment in trade circles are: Rule B—Repudiation of contracts. Lawful contracts are business obligations which should be per-

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### Cotton Council Offers Mill Surveys

Recommendations to individual mills, concerning testing and research laboratory needs, are now offered by the National Cotton Council's technical service department as a special service. Upon request from the mill, a council technical service staff member conducts a specialized survey of the plant's facilities and submits a detailed report on his findings.

A number of cotton textile mills, seeking to establish or improve control and research facilities, are taking advantage of the service. The council technician makes his recommendations to a mill only after a thorough study of the particular problems of that mill. The type of cotton being used and the method of purchase, the variety of goods being produced, existing facilities for testing or research and methods of marketing are all taken into account. The final recommendations are so organized that they may be put into operation in part or as a complete plan.

The council's technician finds that both the desires and requirements of mills show considerable variation. While some may wish only to secure maximum quality and uniformity of production, other mills are interested in expanding control departments into research departments for product development and for expansion into new markets.

The type of operating personnel recommended by the council depends on the projected scope of laboratory facilities and on whether the emphasis is to be on control testing alone or on a combination of research and testing. In general, it has been noted that the larger textile organizations are more conscious of the need for research provisions.

### Plant Air Conditioning Proposal Blasted

South Carolina textile manufacturers are voicing vigorous protests against a bill currently being considered by the South Carolina House of Representatives which would require them to air condition their plants. The bill was reported on favorably by the House labor, commerce and industry committee and is now on the House calendar for decisive second reading when it is reached. John K. Cauthen of Columbia, S. C., executive vice-president of the Cotton Manufacturers Association of South Carolina, said South Carolina's industrial future depends on stopping this legislation, remarking "No other state has such a law and it is significant that only a few weeks ago a committee of the Georgia state house of representatives rejected an identical bill by a 9-2 vote. In North Carolina advocates of such legislation have failed even to get the bill introduced."

Textile machinery valued at about \$1.5 million was shipped to India from Japan during 1948. The total value of orders for textile machinery placed by India in Japan up to the end of last year was approximately \$7.2 million.

## S. T. A. Nominating Committee Appointed

A program for the annual Southern Textile Association convention at Mayview Manor, Blowing Rock, N. C., June 16-18 is now being evolved. Association President Robert T. Stutts, head of Carolinian Mills at High Shoals, N. C., has appointed a nominating committee of four members. They are Marchant Cottingham, assistant manager of the Lancaster, S. C., plant of Springs Cotton Mills; Joseph F. Chalmers, general superintendent of Greenwood (S. C.) Mills; Joe C. Cobb, general superintendent of the Pacific Mills plant at Rhodhiss, N. C.; and J. O. Thomas, personnel manager for Fieldcrest Mills at Leaksville, N. C. Members of the association who wish to suggest names for nomination to three-year terms on the S. T. A. board of governors are asked to contact one of the nominating committee-men. Board members whose terms expire this June are J. L. James, manager of Erwin Cotton Mills Co. at Cooleemee, N. C.; F. E. Bozeman, Jr., superintendent of maintenance for Dan River Mills at Danville, Va.; J. B. Templeton, superintendent of the Poinsett Mill, Brandon Corp., Greenville, S. C.; and J. L. Delany, general superintendent of Joanna (S. C.) Cotton Mills.

New officers were elected by the South Carolina Division of the Southern Textile Association during the group's Spring meeting March 5 at Parker District High School in Greenville. David H. Roberts, overseer of weaving at Spartan Mills, Spartanburg, was named to succeed James B. Lybrand (overseer of carding for Mills Mill, Greenville) as general chairman of the group. Mr. Roberts previously was secretary of the division. J. C. Godfrey, superintendent of Calhoun Mills, Calhoun Falls, was named chairman of the carding and spinning section; he succeeds R. A. Taylor. Abstracts of the papers delivered by Stanley Berg and Karl Selden, Jr., at the meeting are published in this issue.

A discussion of quality and waste control by various methods will be featured at the Spring meeting of the Eastern Carolina Division, S. T. A., when this group gathers April 23. The meeting will begin at 9:45 a. m. at the School of Textiles, N. C. State College, Raleigh. G. E. Moore, superintendent of J. M. Odell Mfg. Co. at Bynum, N. C., is chairman of the division. Methods of quality and

waste control to be discussed include laboratory testing, periodical testing, reports, maintenance, employee training, supervision, etc. The discussion will be divided into four parts—carding, spinning, winding and warping, and slashing and weaving. Methods of sampling for carding defects will be dealt with by John F. Bogdan of the textile school research department.

The executive board of the S. T. A. Northern North Carolina-Virginia Division met recently and decided to schedule this group's next meeting April 30 at the Leaksville (N. C.) High School. (Note—The Textile Industry Schedule on Page 34 of this issue listed the tentative date of this meeting as April 16; subsequent developments have necessitated the new date of April 30—Eds.) The meeting, which will begin at 10 a. m., will feature one main address, to be followed by panel discussions of industrial relations, carding, spinning and weaving. After the business meeting Spray Cotton Mills will be host at a luncheon. Chairman of the Northern North Carolina-Virginia Division is Walter Allison of Dan River Mills, Inc., Danville, Va., and the secretary is Howard Barton of Fieldcrest Mills, Spray, N. C.

## Set Date For Southern Textile Exposition

W. G. Sirrine, president of Textile Hall Corp., Greenville, S. C., last month announced that the date of the 16th Southern Textile Exposition has been fixed for Oct. 2-7, 1950. He revealed that a prospectus would be issued soon after the annual meeting of the corporation's board of directors in June. Over 100 applications for space at the event are already on file.

Phi Psi, national honorary and professional textile fraternity, will hold its 1949 convention May 6-7 at the Biltmore Hotel in Atlanta, Ga. The Phi Psi student chapter at the Georgia Institute of Technology and the Atlanta alumni chapter will act as hosts for the occasion. Plans are being made under the leadership of Fred Williams, general superintendent of Piedmont Cotton Mills, convention chairman, and Frank B. Williams, Jr., of Lanett, Ala., who is president of the Georgia Tech chapter of Phi Psi.

The Improved Automatic Blower and Sweeper is designed for the Spinning, Spool and Twister rooms.

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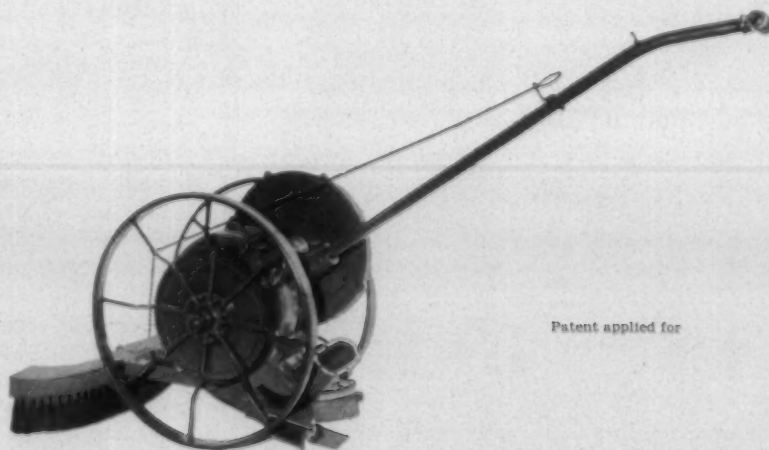
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### Neubert Re-Elected By Textile Group

Henry Neubert, president of the National Federation of Textiles, Inc., at the 77th annual meeting held March 8 told members that in the coming year "members of the industry will be looking to the federation for help, advice and guidance and that, wherever possible, assistance will be rendered. However, there are no quick, easy solutions to many of the problems, and the federation cannot be looked upon to solve what are, in most cases, individual problems of the member organizations." At the same time, Mr. Neubert emphasized that the secretary's report on activities of the federation during 1948 was an interesting and illuminating record of service in meeting changing conditions from a post-war status to a more competitive market where the law of supply and demand again was in effect.

The secretary's report outlined some of the high points of interest as indicated by requests for information from the industry during the year; by a review of the measures taken in presenting the industry views on legislation; by a report of the work done on revising the trade rules on commission throwing, and revising the gray goods contract. The bureau activities in arbitration, design registration, and trade mark clearance were reported on also.

New directors elected were Marvin R. Cross, president of Greenwood Mills, Inc.; R. Stewart Kilborne, Jr., president of William Skinner & Sons; Donald B. Tansill, vice-president of Pepperell Mfg. Co., Inc.; and Walter L. Weil, vice-president of Commercial Factors Corp. Re-elected were Alexander F. Ix, president of Frank Ix & Sons, Inc., and William G. Lord, president of Galey & Lord, Inc. All were elected for a three-year term. Henry Neubert, vice-president of Deering, Milliken & Co., was re-elected president of the federation by the board of directors at a meeting following the annual meeting of members. To serve as vice-presidents, the board elected three of its number—Mr. Ix, John Fox, president of Fox-Wells Co., Inc., and Jacques Weber, president of Bloomsburg Mills, Inc. Miss Irene Blunt was re-elected as secretary and treasurer.

### Book Covers S. C. Workman's Compensation

Workman's compensation in South Carolina is the subject of a book written by Dr. William Hays Simpson of the department of political science at Duke University, Durham, N. C., and published this month by the Dowd Press of Charlotte, N. C. The book, entitled *Workmen's Compensation in South Carolina*, is the result of a year's work entailing interviews with laborers, employers, lawyers, personnel directors, representatives of insurance companies, and others concerned with the subject.

Dr. Simpson describes some abuses which have arisen under the administration of the workmen's compensation act passed by the South Carolina legislature in 1935. The Duke scientist found that the act, while aiming to simplify the collection of damages due injured employees, has actually enabled various lawyers to collect large fees from workers, resulting in a high average of medical cost for the state. Dr. Simpson learned that injured employees whom he interviewed in Greenville, Spartanburg, Greenwood, Anderson, Hartsville, and in other cities of South Carolina, paid from 20 to 50 per cent of their awards to lawyers as fees to represent them at commissioner hearings.

Dr. Simpson points out that only medical bills of over

\$100 are reviewed by the part time medical examiner. He attributes this as a contributing factor in causing the average medical cost per case to be higher in South Carolina than in the neighboring states of Georgia and North Carolina. The average medical cost per case over a five-year period was in Georgia \$18, North Carolina \$17, and South Carolina \$22.

The book also includes a comparison of compensation provisions in 11 Southern states. One table shows that compensation insurance rates in South Carolina are higher in every classification than in nearby states, and in some instances are more than twice as high. The author lists various recommendations including the reduction of the industrial commission in number from five to three, the chairman to be a representative of the public, and the other two to represent labor and capital, respectively.

He suggests also that lawyers fees be regulated and that a full-time medical examiner be appointed to pass on all medical bills; that the disfigurement provision be amended to make it similar to the provision in the North Carolina law; that records of the commission be open for examination by the public; that the coverage of employments under the act be increased; that benefits under the act be increased to allow larger payments for permanent total disability cases and that compensation be provided for occupational diseases and that courts of South Carolina be permitted to review decisions of the commission on points of facts as well as on points of law.

Dr. Simpson is the author of the *Small Loan Problem of the Carolinas*, *Life in Mill Communities*, and *Southern Textile Communities*.

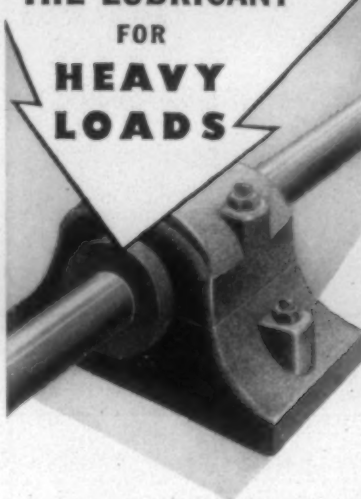
### Reciprocal Trade Agreements Act Opposed

Spokesmen for two national textile associations last month appeared before the Senate Finance Committee to voice their disapproval of the Reciprocal Trade Agreements Act. They were Dr. Claudius T. Murchison, president of the Cotton-Textile Institute, and Charles A. Cannon, chairman of the legislative committee of the American Cotton Manufacturers Association.

The international competitive position of the American cotton textile industry, as measured by the level of tariff protection, is more insecure today than at any time since the 1930s when markets here were being flooded with Japanese goods, the Cotton-Textile Institute declared Feb. 23 in a brief filed with the committee. As a result of previous cuts in reciprocal trade agreements, ad valorem duties on cotton textiles have been reduced to the levels of 1913, Dr. Murchison told the committee. While duties on imports of cotton goods into this country were being cut, he explained, foreign countries were raising their barriers against American goods. Concessions obtained on American textiles in the trade agreements have been few and insignificant and even these have been cancelled by the imposition of currency restrictions and quota limitations by foreign countries, he stated.

"Foreign textile industries have been revived and are entering into all the markets of the world," he declared. "American cotton textile exports have decreased from 1,470,000,000 yards in 1947 to 940,000,000 yards in 1948, a drop of 36.5 per cent. All over the world, even in Japan, production operations are increasing. The 19 Marshall-aid

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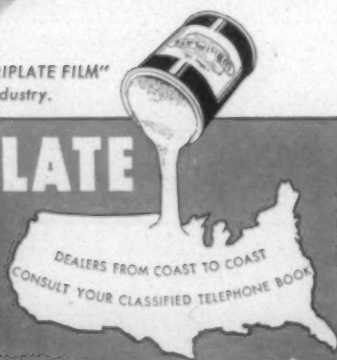
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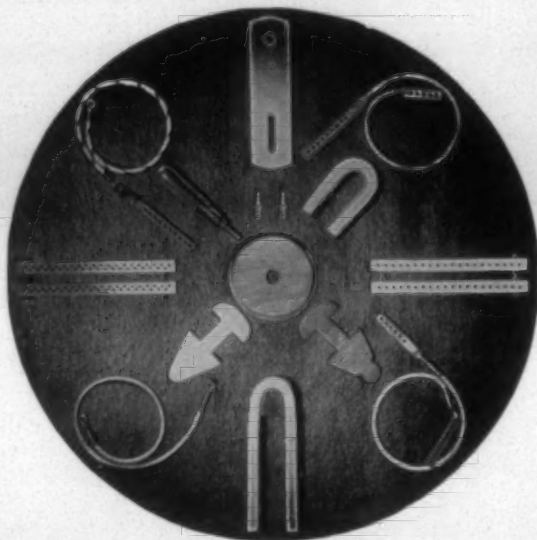
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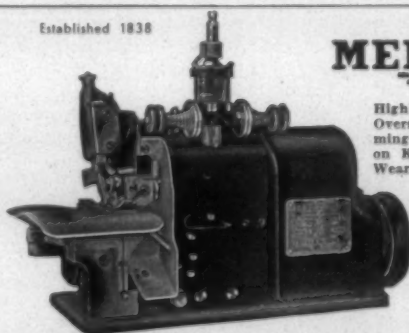
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countries now have 55 million spindles in place and are planning the installation of an additional 15 million spindles. As long as their hunger for dollars continues, the market of the United States is a target for the output of this tremendous capacity. The only protection against this capacity is a tariff wall which has already been lowered by about 25 per cent. This barrier could be almost completely wiped out if the official values of foreign countries were revised to their present values in the black market." Dr. Murchison took strong exceptions to the proposal to repeal the "peril point provision" of the 1948 act. He described this provision as the "first important advance in the administration of the law since the inception of the program." Elimination of this provision, he declared, would mean that the State Department would be free to write off certain American industries if it desires to do so.

Mr. Cannon urged the committee to write into the pending reciprocal trade agreements law two provisions which he holds necessary to the survival of the cotton textile industry. These provisions call for adoption of the "peril point" and "escape" clauses. These were part of the 1948 trade agreement law written under Republican leadership. The industrialist believes that the peril point clause should be established because it requires the tariff commission to advise the President when tariffs reach a danger point. The President could not go below these points without going to Congress to explain his position. Mr. Cannon also wants the escape clause, not only adopted in the new measure, but inserted in all trade agreements not now containing the provision. Under this section business ups and downs, production changes, etc., which would make it a hardship to operate under the agreement, the escape clause would give industry an appeal for relief.

### Carded Yarn Association To Meet Oct. 27-28

The Carded Yarn Association will hold its annual meeting this year Oct. 27-28 at the Sheraton Bon Air Hotel in Augusta, Ga., it was announced recently by E. Owen Fitzsimons of Charlotte, N. C., president of the group. This will mark the first meeting of more than a single day since formation of the Carded Yarn Group in 1936 and the succeeding organization, the Carded Yarn Association, Inc., three years ago.

Program for the parley includes registration of delegates at noon, Thursday, Oct. 27. In the afternoon the customary business session of the membership will be held, with election of officers and directors for the next year. A dinner meeting of the association's board is scheduled for that evening.

On Friday morning, Oct. 28, there will be an open meeting for members and their guests, with an absence of association activities and reports. Ted M. Forbes, executive vice-president of the Cotton Manufacturers Association of Georgia, will be one of the speakers. Other persons to appear on the program will be made known at a later date, it was stated. Friday afternoon will be left open for sports and recreation. A banquet in the evening will conclude the parley.

Membership of the association includes representative manufacturers of carded cotton sales yarn from Maine, Massachusetts, Pennsylvania, Maryland, Virginia, North Carolina, South Carolina, Georgia, Alabama, Kentucky, Tennessee and Texas.



## Urge Continuance Of Taft-Hartley Act

Maintaining that the Taft-Hartley Act has accomplished much in establishing the balance in labor management relations necessary to peaceful collective bargaining, David T. Roadley of Charlotte, N. C., March 9 urged the House labor committee not to repeal the measure. Speaking for the American Cotton Manufacturers Association, Mr. Roadley, who is personnel director for Kendall Mills, declared that to scrap the bill simply because of opposition of union leaders "would hurt employers, workers, and that great body which suffers when either employers or unions have unwarranted powers . . . the public at large." He pointed out that the cotton textile industry has lost fewer man days from strikes during the life of this act than in the comparative period preceding under the old Wagner Act. He said there has been a decline in the number of unfair labor practices cases filed, even taking into account these provisions of the Taft-Hartley Act which authorize unfair labor practice complaints against unions. Summing up the A. C. M. A. position, Mr. Roadley said the association feels that the dire predictions of industrial strife and injury to the labor movement as the result of the enactment of the Taft-Hartley Act have not been borne out. This, in view of the hostile attitude of union labor officials towards the act, is extremely significant, he added.

## Pelzer Wins Southern Textile Cage Tourney

An estimated 20,000 persons witnessed the 26th annual Southern Textile Basketball Tournament held March 1-5 in Greenville, S. C. Top tournament honors were captured by Pelzer (S. C.) Mills, Class A Boys, and Chatham Mfg. Co., Elkin, N. C., Class A Girls. Other winners were: Pacific Mills (Lyman, S. C., division), Class B Boys; North Georgia Processing Co. of Toccoa, Ga., Class B Girls; and Dunan Mills of Greenville, Class C Boys. Runners-up in these divisions were: Peerless Woolen Mills of Rossville, Ga.; Drayton Mills, Spartanburg, S. C.; Southern Franklin Processing Co. of Greenville; Riegel Mfg. Co. of Ware Shoals, S. C., and Pelzer Mills. Pelzer is a subsidiary of the Kendall Co.

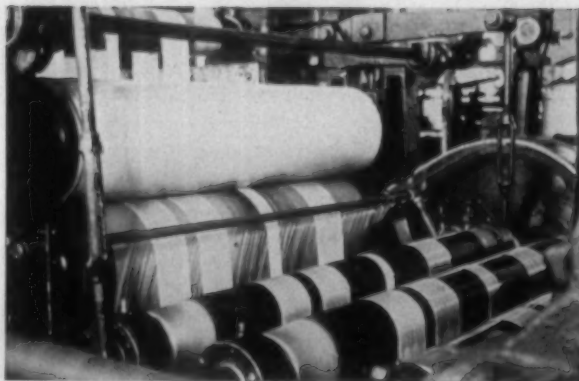
The following all-star teams were selected at the conclusion of the tournament:

Class A boys: Wooten (Pelzer), Michaels (Peerless), Becker (Pelzer), Cooke (Peerless) and Walters (Enka). Class A girls: Paradise (Chatham), Badgett (Chatham), Condrey (Drayton), Melton (Drayton), Janie Sherrill (Chatham), Cope (Chatham).

Class B boys: Beasley (Lyman), Eubanks (Lyman), Burgess (Beacon), Horn (Martel), Landreth (Southern Franklin). Class B girls: Dorothy Nimmons (Piedmont), Martin (Calhoun Falls), Thompson (Ware Shoals), Hollyfield (Toccoa), Poore (Ware Shoals), Payne (Toccoa). Class C boys: Granger (Dunnean), Cox (Dunnean), Drennon (Pelzer), Wyatt (Monaghan), and Bagwell (Monaghan).

The new edition of the pocket size *Clark's Directory of Southern Textile Mills*, the 1949 edition, has been completed and is now ready for mailing by Clark Publishing Co.

It is the Sixty-Seventh Edition, as the first edition was issued on July 1, 1911. For a number of years it was issued twice per year, but in recent years it has been issued annually. Address orders to P. O. Box 1225, Charlotte 1, N. C.



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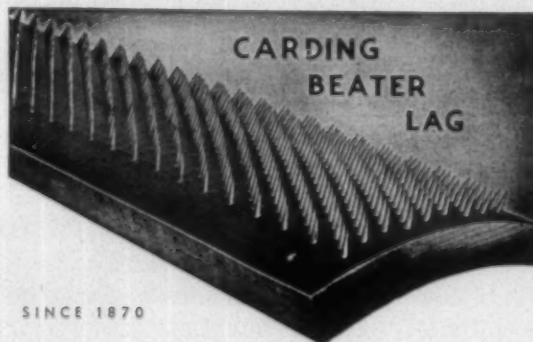
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## Two Groups Cited In F. T. C. Complaint

The Cotton-Textile Institute, Inc., New York, the Carded Yarn Association, Inc., Charlotte, N. C., and the officers, directors and executive committees of both groups March 14 were named in a Federal Trade Commission complaint. It charged 30 manufacturers and distributors of twine products with combination and conspiracy to eliminate competition and restrain trade.

The F.T.C. complaint charged the following respondents with reducing prices for hop twine to "unreasonably low levels" for a brief period to destroy competition and eliminate a competitor: Bibb Mfg. Co., Macon, Ga., and its agent, Arthur J. Toupin, trading as Toupin Hardware Co., Moxee City, Wash.; California Cotton Mills Co., Oakland, Calif., its representative, William C. Hood, Seattle, and its distributor, Carl E. Nelson and Mrs. Alice G. Brown, co-partners trading as Clifford W. Brown Co., Salem, Ore.; Shuford Mills, Inc., Hickory, N. C.; A. A. Shuford Mills Co. and Highland Cordage Co., both of East Hickory, N. C., and Hickory Spinning Co., West Hickory, N. C.; Granite Falls Mfg. Co. and Granite Cordage Co., both of Granite Falls, N. C.; Schermerhorn Bros. Co., Chicago, its vice-president and general manager, Arthur J. Cooley, Seattle, its manager, R. C. Frost, Portland, Ore., and its sales manager, Edward Hase, San Francisco; Yakima (Wash.) Hardware Co.; Ames, Harris & Neville Co., Portland, Ore., and Blake, Moffitt & Towne, San Francisco.

In addition, the following were named respondents: Oakdale Cotton Mills, Jamestown, N. C.; Cleveland Mill & Power Co., Lawndale, N. C.; Rocky Mount (N. C.)

Mills; Orange Cotton Mills, Orangeburg, S. C.; January & Wood Co., Maysville, Ky.; Puritan Cordage Mills, Inc., Louisville, Ky.; Rockford (Tenn.) Mfg. Co.; Callaway Mills, LaGrange, Ga.; Silver Lake Co. and Whittier Mills Co., both of Chattahoochee, Ga.; Southern Mills Corp., Oxford, Ala.; Mt. Vernon-Woodberry Mills, Inc., Baltimore; Wm. E. Hooper & Sons Co., Philadelphia; Houston (Tex.) Cotton Mills Co.; Linen Thread Co., Inc., J. P. Stevens & Co., and Turner-Halsey Co., all of New York; Dan River Mills, Inc., Danville, Va.; Samson Cordage Works, Boston; Bascom B. Blackwelder, Hildebran, N. C., formerly president of A. A. Shuford Mills Co.; Granite Falls Mfg. Co., Highland Cordage Co. and Granite Cordage Co.; E. Owen Fitzsimons, Charlotte, N. C., president and treasurer of the Carded Yarn Association, and Paul B. Halsted, New York, secretary-treasurer of the Cotton-Textile Institute.

## Exhibit Of S. C. Products Planned

With the idea in mind of stimulating South Carolinians' interest in the products manufactured within the state's borders, Radio Station W.T.M.A. of Charleston is planning an extensive promotion campaign entitled "Acres of Diamonds." The campaign, which runs from April 1 to June 30, will center around a "South Carolina-Made Products Exposition" in Charleston's County Mall May 9-14.

A five-week educational campaign of radio and newspaper promotion will precede the exposition. One thousand dollars in prizes will be given for the best essays submitted by South Carolinians as to why they should buy South Carolina-

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Here's a tool that has been off the market during the war and for which we have had many requests. These reed squares were ground to our specifications ( $2" \times 1\frac{1}{8}" \times \frac{1}{4}"$  thick). They have a finger hold for easy handling and they are finished with Chrome.

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made products. These winners will be announced at the exposition. Along with this there will be 350 announcements and 75 programs over W.T.M.A. explaining the campaign. Also there will be 7,000 lines of display advertising in the *News & Courier* and *Evening Post*, plus hundreds of window displays and other publicity features.

The follow-up campaign, which runs for six weeks following the exposition, will be similar to the educational program with frequent reference being made to each of the firms that were exhibitors. The staff of W.T.M.A. has spent months planning the campaign with the idea that South Carolina is or will be what the people make it; that the most important way to make South Carolina a better state is to support industry by buying products made in the state.

### Barkley To Speak At A. C. M. A. Convention

Vice-President Alben W. Barkley will be one of the principal speakers at the annual convention of the American Cotton Manufacturers Association to be held March 31-April 2 at Palm Beach, Fla. Mr. Barkley will speak at the Friday afternoon session, April 1. Other speakers scheduled to be heard at the event include H. L. Wingate, president of the Georgia Farm Bureau Federation and vice-president of the National Cotton Council; M. Earl Heard, vice-president in charge of research at West Point (Ga.) Mfg. Co. and chairman of the association's committee on research; Dr. Claudius Murchison, president, and G. Ellsworth Hugins, chairman, of the Cotton-Textile Institute.

Opening session of the event will be held Thursday afternoon, March 31. Frank S. Wright, assistant to Gov. Fuller Warren of Florida, will deliver the address of welcome and W. A. L. Sibley of Union, S. C., member of the association's board of government, will respond. A dinner meeting of the association's board of government will be held at 7 p. m.

Ellison S. McKissick of Easley, S. C., first vice-president of the association, will preside at the Friday afternoon session when Vice-President Barkley will be heard. Mr. Wingate and Mr. Heard will also speak during this session; Mr. Wingate will discuss the relationship of Southern agriculture and industry and Mr. Heard will consider the need for research in the textile industry. The annual banquet will be held Friday evening at 7:30 and toastmaster for the occasion will be Harvey Moore of Charlotte, N. C., chairman of the board of government.

George P. Swift of Columbus, Ga., second vice-president of the group, will preside at the Saturday morning session, April 2. Committee reports, election of officers, handling of new business, and a presentation by Charles A. Cannon of Kannapolis, N. C., past chairman of the board of the association, are on the agenda for this session. The final meeting of the convention will be held by the new board of government at 1 o'clock in the afternoon.

The Nu-Fab Corp. of Chicago, advertising a new product, Miracloth, a cleaning fabric, recently ran what is believed to be the most expensive single advertisement ever printed in a newspaper. Appearing in *The Chicago Tribune*, the advertisement was printed on the new fabric which ran through the presses just as regular newsprint. The company paid \$40,000 for the advertisement, \$32,000 of which was for the cost of the 440,000 square yards of material on which it was printed.

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### Fourth Quarter Broad Woven Output Listed

A total of 2,260 million linear yards of cotton broad woven fabrics (except tire fabrics) was produced in the fourth quarter of 1948, according to the Bureau of the Census, Department of Commerce. This production was almost the same as in the third quarter, but was 12 per cent below fourth quarter 1947. Production of tire cord fabric, at 129 million pounds, was seven per cent below the third quarter and 12 per cent below the fourth quarter of last year.

Production of every type of goods except cotton duck and rayon and nylon tire cord and fabric was below the fourth quarter of 1947. Cotton tire cord and fabric production, totaling 64 million pounds, was lower than at any time since the fourth quarter of 1944, when 58 million pounds were produced.

Output of narrow sheetings and allied coarse and medium yarn fabrics increased slightly in the fourth quarter, with osnaburgs and Class B sheetings showing a considerable increase, while Class A sheetings declined. Carded broadcloths, totaling 62 million yards, and combed and part combed broadcloths, totaling 31 million yards, continued to decline.

The production of 352 million yards of tobacco and cheese cloths marked an increase of 11 million yards over the third quarter and of 28 million yards over the fourth quarter of 1947. Napped fabrics production of 104 million yards was the lowest reported since the fourth quarter of 1945. Marquisettes production of 43 million yards was down 17 per cent from the third quarter and 29 per cent from the fourth quarter of 1947.

The data were reported by manufacturers primarily engaged in weaving fabrics over 12 inches in width of cotton, silk, rayon, and other synthetic fibers. All known manufacturers in the industry were canvassed. Estimates have been included for companies whose reports were not received in time for tabulation; these companies account for approximately 15 per cent of the total looms in place.

### February Cotton Consumption Reflects Drop

Lint cotton consumed during February, 1949, according to the Bureau of the Census, totaled 640,182 bales, compared with 674,463 bales during January and 785,677 during February of 1948. Consumption for the seven months ended Feb. 28 totaled 4,844,239 bales compared with 5,431,140 for the corresponding period a year previously.

Cotton consumed during February included: in cotton-growing states, 574,577 bales, compared with 607,398 in January this year, and 693,920 in February of last year, and for the seven-month period, 4,323,886 compared with 4,788,678 in the corresponding period a year ago; in the New England states, 52,330 bales, compared with 52,901

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and 73,369, and for the seven-month period 418,144 compared with 516,256.

Bales of lint cotton on hand Feb. 28 included: in consuming establishments, 1,617,962 compared with 2,244,151 a year ago; in public storage and at compresses, 7,500,407 compared with 4,474,308 a year ago. In cotton-growing states consuming establishments had 1,401,677 bales on hand Feb. 28 compared with 1,894,200 a year ago; in public storage and at compresses were 7,461,960 bales compared with 4,408,512 a year ago. New England consuming establishments held 177,533 bales Feb. 28 compared with 298,119 a year ago; in public storage and at compresses Feb. 28 were 31,457 bales compared with 50,780 a year ago.

Cotton spindles active during February numbered 20,758,000 compared with 20,927,000 during January this year, and 21,485,000 during February last year. In cotton-growing states there were 16,595,000 compared with 16,630,000 for January this year and 17,032,000 for February last year; in New England states, 3,781,000 compared with 3,891,000 and 4,029,000.

### February Rayon Shipments Off 11 Per Cent

Shipments of rayon yarn and staple by domestic producers in February approximated 78,000,000 pounds, a decline of 11 per cent from the 87,600,000 pounds shipped in January, according to the March issue of the *Rayon Organon*, statistical bulletin of the Textile Economics Bureau, Inc. Total deliveries for the first two months of the year were four per cent under those of the similar period in 1948. Filament yarn deliveries in January amounted to 69,800,000 pounds (44,800,000 pounds viscose-cupra and 25,000,000 pounds acetate), while February shipments totaled 63,000,000 pounds (41,000,000 viscose-cupra and 22,000,000 acetate). January shipments of staple fiber totaled 17,800,000 pounds, of which 13,600,000 pounds were viscose and the balance acetate. February shipments declined to 15,000,000 pounds (12,000,000 viscose and 3,000,000 acetate).

Producers stocks of filament rayon yarn at the end of January amounted to 15,200,000 pounds and by the end of February had increased to 21,000,000 pounds. A similar increase was registered in producers' staple stocks which rose from 6,200,000 pounds at the end of January to 10,000,000 pounds Feb. 28.

Imports of rayon filament yarn during 1948, according to final figures released by the Department of Commerce, amounted to 10,059,530 pounds, valued at \$11,963,264, or an average of \$1.19 a pound. In terms of weight the filament yarn imports were the largest since 1929 and in value

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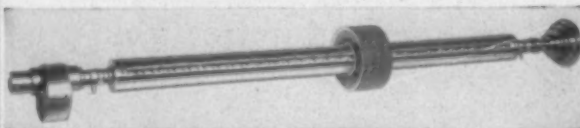
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the largest since 1927, the highest year on record. Rayon staple imports in 1948 reached a total of 38,637,791 pounds valued at \$13,339,499, or an average value of 35 cents per pound. Staple imports in 1948 represented a further increase in the high post-war level, reaching the highest dollar volume on record and, in terms of weight, they were exceeded only in the peak year of 1939 when 47,402,005 pounds were imported.

Exports of rayon filament yarn during 1948 fell to 14,944,759 pounds, 37 per cent under exports in 1947. These exports were valued at \$12,734,986, or an average of 85 cents a pound. From the standpoint of weight, 48 per cent more yarn was exported from this country than was imported. Staple and waste exported during 1948 amounted to 7,439,566 pounds valued at \$2,129,358, or 29 cents a pound. Spun rayon yarn exports totaled 698,484 pounds with an average value of \$1.05 a pound.

Italy was the most important source of filament yarn shipped to the United States, accounting for 30 per cent of the total, followed by Germany with 28 per cent, the United Kingdom ten per cent; Switzerland eight per cent; and the Netherlands and France with seven per cent each. For staple exports to this country, France replaced Belgium as the most important source with 27 per cent of the total. Netherlands came next with 20 per cent; Belgium 18 per cent; United Kingdom 15 per cent; and Switzerland 12 per

cent. The remainder of imports were scattered. The United Kingdom registered the largest actual and relative gain in staple exports to the United States rising from 1,295,000 pounds in 1947 to 5,833,000 pounds in 1948, or from four per cent of the total in 1947 to 15 per cent in 1948.

A study made by the *Organon* on cellulose consumption in the rayon industry reveals that in 1948 all previous records were broken. A total of 539,500 short tons of cellulose was consumed in 1948, a gain of 13 per cent over the previous year. This figure does not include cellulose pulp consumed in the manufacture of cellophane, plastics or products other than rayon filament yarn, staple and waste. During 1948 the proportion of cotton linters to wood pulp used for rayon production showed a gain. Linters accounted for 19 per cent of the total cellulose poundage consumed as against 17 per cent in 1947. Put another way, linters pulp usage in 1948 increased 29 per cent over the previous year while the increase in wood pulp was ten per cent.

The United States is the largest user of apparel wools in the world, consuming 1,000,000,000 pounds annually, of which about three-fourths are imported.

A pound of textiles is used with every three pounds of rubber, making textiles the most important raw material in the manufacture of rubber products.

## SOUTHERN SOURCES OF SUPPLY for Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in *TEXTILE BULLETIN*. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

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**AMERICAN CYANAMID CO.**, Industrial Chemicals Div., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, Wilkinson Blvd., Charlotte, N. C. Hugh Puckett, Sou. District Mgr. Reprs.: John D. Hunter, Paul F. Haddock, R. S. Meade, Q. M. Rhodes, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Button, 1409 Garland Drive, Greensboro, N. C.; C. B. Suttle, Jr., 423 Clairmont Ave., Decatur, Ga.; C. P. Kirchen, 10 South St., Mobile, Ala.; T. O. McDonald, 531 Masonic Temple Bldg., New Orleans, La.

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**HART PRODUCTS CORP.**, 1440 Broadway, New York 18, N. Y.

**H & B AMERICAN MACHINE CO.**, Pawtucket, R. I. Sou. Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga., J. C. Martin, Mgr.; Charlotte, N. C. Office, 1201 Johnston Bldg., Herman J. Jones, Div. Mgr.; J. T. Miller, Service Repr.

**HENDERSON FOUNDRY & MACHINE CO.** (Div. of Southern States Equipment Co.), Hampton, Ga.

**HENLEY PAPER CO.** (formerly Parker Paper Co.), Headquarters and Main Warehouse, High Point, N. C.; Warehouses and Sales Divisions: Charlotte, N. C., Asheville, N. C., Gastonia, N. C.

**HERSEY, HENRY H.**, 44 Norwood Place, Greenville, S. C. Selling Agent for A. C. Lawrence Leather Co. and New England Bobbin & Shuttle Co.

**HETHERINGTON & SONS, INC., JOHN**, 72 Lincoln St., Boston 11, Mass. Sou. Repr.: Thomas M. Brockman, Jr., 236 W. Airline Ave., Gastonia, N. C.

**HOUGHTON & CO., E. F.**, 303 Lehigh Ave., Philadelphia 33, Pa. Sou. Reprs.: W. H. Brinkley, Gen. Sales Mgr., Sou. Div. 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916. Sou. Reprs.: L. L. Brooks, 506 Cedar Rock St., Pickens, S. C., Tel. 3041; J. W. Byrnes, 701 N. Jacinto St., Houston 2, Tex., Tel. Preston 7151; G. J. Reese, 546 McCallie Ave., Chattanooga, Tenn.; C. L. Elgett, 10 E. Lexington St., Baltimore 2, Md., Tel. Saratoga 2388; T. E. Hansen, Rt. No. 2, Box 157, Glen Allen, Va., Tel. 5-1620; J. J. Reilly, 2788 Peachtree Rd., N.E., Apt. 6-B, Atlanta, Ga., Tel. Cherokee 7660; P. P. Hunt, Secretarial Exchange, 902-904 Dermon Bldg., Memphis, Tenn., Tel. 37-9626; A. N. Jackson, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916; S. P. Schwoyer, P. O. Box 1507 or 302½ Otteray Drive, High Point, N. C., Tel. 3654; J. C. Mahaffey, Warp Size Specialist, 1301 W. Morehead St., Charlotte, N. C.

## SOUTHERN SOURCES OF SUPPLY

**HOUGHTON WOOL CO., THE**, 258 Summer St., Phone Liberty 1875, Boston, Mass. Sou. Repr.: Jas. E. Taylor, P. O. Box 2064, Phone 3-3692, Charlotte 1, N. C.

**HOWARD BROS. MFG. CO.**, 44-46 Vine St., Worcester, Mass. Sou. Offices and Plants, 244 Forsyth St., S.W., Atlanta, Ga.; Guy L. Melchor, Sou. Agent; J. Floyd Childs, 219-223 S. Linwood St., Gastonia, N. C.; Carl M. Moore, Agent; Southwestern Repr., Russell A. Singleton Co., Inc., 718 Brown Bldg., Austin, Tex.

**HUBINGER CO., THE**, Keokuk, Iowa, Sales Repr.: Ira L. Griffin, P. O. Box 1576, Charlotte, N. C. Tel. 4-5306.

**HUNT MACHINE WORKS, INC.**, 200 Academy St., Greenville, S. C.

**HYSTER CO.**, Portland 8, Ore.—Sou. Repr.: L. S. Teague Equipment Co., 921 Lynch Bldg., Jacksonville 2, Fla.

**IDEAL MACHINE CO.**, Bessemer City, N. C., A. W. Kincaid, Mgr.

**INDUSTRIAL AIR CO.**, Needham, Mass.

**INDUSTRIAL SUPPLY COMPANY**, Clinton, S. C.

**JENKINS METAL SHOPS, INC.**, Gastonia, N. C.

**KEEVER STARCH CO.**, Columbus, O. Sou. Office, 1209 Woodside Bldg., Greenville, S. C. Sou. Warehouses: Greenville, S. C., Charlotte, N. C. Sou. Reprs.: C. C. Switzer, Greenville, S. C.; E. Hays Reynolds, Greenville, S. C.; Luke Castle, 924 Monticello Terrace, Charlotte 3, N. C.; F. M. Wallace, Homewood, Birmingham, Ala.

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**LAMBETH ROPE CORP.**, New Bedford, Mass., Frank Burke, Phone 3-4287, Charlotte, N. C.; J. P. O'Leary, Phone 4082-M, Greenville, S. C.

**LANDIS, INC., OLIVER D.**, 718 Queens Road, Charlotte 7, N. C.

**LAUREL SOAP MFG. CO., INC.**, 2607 E. Tioga St., Philadelphia, Pa. Sou. Reprs.: A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.; W. R. Sargent, P. O. Box 1044, Greenville, S. C.

**LEWIS MACHINERY CO., W. D.**, P. O. Box 826, Gastonia, N. C.

**LOPER CO., RALPH E.**, 609 Woodside Bldg., Greenville, S. C. New England Office, Buffington Bldg., Fall River, Mass.

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**MAGUIRE & CO., INC., JOHN P.**, 370 Fourth Ave., New York, N. Y.

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**McKEE BELTING CO.**, 213 N. Third St., Philadelphia, Pa. Sou. Repr.: T. J. Digby, Jr., P. O. Box 244, Greer, S. C.

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**MEDLEY MFG. CO.**, 400—32nd St., Columbus, Ga. Phone 2-1695-6.

**MEINHARD, GREEFF, & CO.**, 51 Madison Ave., New York, N. Y. Sou. Repr.: E. F. Skinner, Johnston Bldg., Charlotte 2, N. C.

**MERROW MACHINE CO., THE**, 8 Laurel St., Hartford, Conn. Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

**MILL DEVICES CO.**, Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas; Eastern Repr.: (including Canada) C. E. Herrick, 44 Franklin St., Providence, R. I.; European Repr.: Mellor, Bromley & Co., Ltd., Leicester, England.

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**MONARCH ELEVATOR & MACHINE CO.**, Greensboro, N. C. (Freight and Passenger Elevators). Service Branches: Charlotte, N. C.; Augusta, Ga.

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**NATIONAL RING TRAVELER CO.**, 354 Pine St., Pawtucket, R. I. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Gen. Mgr., L. E. Taylor, Pawtucket, R. I. Sou. Mgr., H. B. Askew, Charlotte, N. C. Sou. Reprs.: J. K. Sumner, P. O. Box 1607, Charlotte, N. C.; Donald C. Creech, P. O. Box 1723, High Point, N. C.; Frank S. Beacham, P. O. Box 281, Hones Path, S. C.; James B. Poteet, P. O. Box 221, Griffin, Ga.; W. Harry King, P. O. Box 272, Atlanta, Ga.

**NEISLER MILLS CO., INC.**, 40 Worth St., New York, N. Y.

**NEW ENGLAND BOBBIN & SHUTTLE CO.**, Nashua, N. H. Sou. Reprs.: Charlotte Supply Co., Charlotte, N. C.; Mrs. W. G. Hamner, Box 26, Gastonia, N. C.; Arthur W. Harris, 443 Stonewall St., S.W., Atlanta, Ga.; Henry H. Hershey, Norwood Place, Greenville, S. C.

**N. Y. & N. J. LUBRICANT CO.**, 292 Madison Ave., New York, N. Y. Sou. Office and Warehouse: 224 W. First St., Charlotte, N. C. Phone 3-7191. Falls L. Thomson, Sou. Agt., 224 W. First St., Charlotte, N. C.; W. C. Taylor, Box 1181, Greensboro, N. C.; F. W. Phillips, Box 722, Greenville, S. C.; Julian T. Pool, P. O. Box 316, LaGrange, Ga.; James E. McNeely, Jr., Box 82, Gastonia, N. C.; James A. Sorrell, Jr., Box 1082, Nashville 2, Tenn.

**NORLANDER-YOUNG MACHINE CO.**, New Bedford, Mass. Sou. Plant, York Road, Gastonia, N. C.

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**NUMO MACHINE & ENGINEERING CO., INC.**, Liberty Life Bldg., Charlotte, N. C. Ernest F. Culbreath, Pres.; Sou. Repr.: Floyd Isom, Station C, Box 164, Atlanta, Ga.; N. C. and Virginia Repr.: Walter S. Coleman, Box 722, Salisbury, N. C.

**OLD DOMINION BOX CO.**, Charlotte, N. C.; Lynchburg, Va.

**PARTS SALES CO.**, 221 N. LaSalle St., Chicago 1, Ill. Sou. Repr.: C. H. Patrick, P. O. Box 300, Salisbury, N. C., Phone 1066. Sou. Warehouse, Textile Warehouse Co., Greenville, S. C.

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**PILOT LIFE INSURANCE CO.**, Jos. F. Freeman, Vice-President in Charge of Group Department, Greensboro, N. C.

**PIONEER HEDDLE & REED CO., INC.**, 1374 Murphy Ave., S.W., P. O. Box 116, Station A, Telephone Raymond 2126, Atlanta, Ga. Frank G. North, Chairman of the Board; Mark W. Mayes, Pres. and Treas.; E. LeClair, Sales Mgr.; Glee B. Thompson, S. Cantey Alexander, Atlanta, Ga.; Raymond J. Payne, Carolina Repr., P. O. Box 6000, Charlotte 7, N. C., Tel. 4-7331.

**PITTSBURGH PLATE GLASS CO.**, Columbia Chemical Div., Grant Bldg., Pittsburgh, Pa. Dist. Sales Office, 615 Johnston Bldg., Charlotte, N. C., James R. Simpson, Dist. Sales Mgr.

**PNEUMAFIL CORP.**, 2516 Wilkinson Blvd., Charlotte, N. C.

**PRECISION GEAR & MACHINE CO.**, 2001 N. Tryon St., Charlotte 2, N. C.

**PRICE SPINDLE & FLYER CO.**, Camp Wadsworth, Spartanburg, S. C.

**PROCTOR & SCHWARTZ, INC.**, 7th Ave. and Tabor Rd., Philadelphia 20, Pa. Sou. Office: Wilder Bldg., Charlotte, N. C.

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**RHOADS & SONS, J. E.**, 35 N. Sixth St., Philadelphia 6, Pa. Sou. Office: J. E. Rhoads & Sons 88 Forsyth St., S.W., Atlanta, Ga., P. O. Box 4305, C. R. Mitchell, Mgr. Sou. Reprs.: J. Warren Mitchell, P. O. Box 1589, Greenville, S. C.; A. S. Jay, P. O. Box 687, Sylacauga, Ala.; J. T. Hoffman, P. O. Box 4305, Atlanta, Ga.; L. H. Schwoebel, 615 Roslyn Road, Winston-Salem, N. C.; Textile Supply Co., 301 N. Market St., Dallas, Tex.



## SOUTHERN SOURCES OF SUPPLY

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**ROBERT & CO. ASSOCIATES, INC.**, Atlanta, Ga.

**ROY & SON CO.**, B. S., Worcester, Mass. Sou. Office and Supply Depot: 1623 N. Tryon St., Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

**ROYCE CHEMICAL CO.**, Carlton Hill, N. J. Sou. Repr.: Irving J. Royce, 2608 Belvedere Ave., Charlotte, N. C.

**SACO-LOWELL SHOPS**, 40 Battery March St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C.; Walter W. Gayle, Sou. Agt., F. Robbins Lowe and C. P. Clanton, Selling Agts.: Atlanta, Ga.; Miles A. Comer and H. M. Walsh, Selling Agts.: Greenville, S. C.; Charles S. Smart, Jr., Selling Agt.

**SALISBURY IRON WORKS, INC.**, Salisbury, N. C.

**SANDOZ CHEMICAL WORKS, INC.**, 61 Van Dam St., New York 13, N. Y. Sou. Office: 1510-12 Camden Rd., Charlotte, N. C.; A. T. Hanes, Jr., Mgr.

**SEYDEL-WOOLLEY & CO.**, 748 Rice St., N.W., Atlanta, Ga. Reprs.: Vasser Woolley, John R. Seydel, E. A. Scott, A. Pale, Atlanta, Ga.; W. L. Whisman, Concord, N. C. Northern and Export Repr.: Standard Mill Supply Co., 1064-1090 Main St., Pawtucket, R. I. (conditioning machinery and penetrants only). Southwestern Reprs.: O. T. Daniel, Textile Supply Co., 301 N. Market St., Dallas, Tex.; Welling LaGrone, 13 W. Fairview Ave., Greenville, S. C.

**SINCLAIR REFINING CO.**, Dist. Office, 573 W. Peachtree St., Atlanta, Ga.; F. W. Schwetmann, Mgr., Lubricating Sales; P. W. Goddard, Mgr., Industrial Oil Sales; G. R. Dyer, Mgr., National Accounts Dept. State Offices: Atlanta, Ga.; Birmingham, Ala.; Jacksonville, Fla.; Miami, Fla.; Tampa, Fla.; Columbia, S. C.; Charlotte, N. C.; Nashville, Tenn.; Jackson, Miss. Industrial Lubricating Engineers: W. P. Camp, P. O. Box 988, Columbia, S. C.; J. O. Holt, P. O. Box 5516, Raleigh, N. C.; L. M. Kay, 332 Eighth St., N.E., Atlanta, Ga.; G. C. Kimbrough, P. O. Box 338, Nashville, Tenn.; W. H. Lipscomb, Apt. 6, 111 Broadus Ave., Greenville, S. C.; R. C. Marlen, Rt. 1, Elmore, Ala.; R. O. Miller, 15 Miller Ave., Concord, N. C.; C. C. Nix, P. O. Box 2111, Birmingham, Ala.; R. L. Parrish, 211 Claire Drive, Thomasville, Ga.; R. A. Smith, P. O. Box 1366, Knoxville, Tenn.; E. D. Watson, 218 Georgia Ave., Macon, Ga.

**SIRLINE CO.**, I. E., Greenville, S. C.

**SLAUGHTER MACHINERY CO.**, 513 S. Tryon St., Charlotte, N. C.

**SMITH & SON, E. E.**, Gastonia, N. C.

**SMITH TEXTILE APRON CO.**, 1055 W. Franklin Ave., Gastonia, N. C.

**SMITH, YATES D.**, 1055 W. Franklin Ave., Gastonia, N. C.

**SOLVAY SALES DIVISION, ALLIED CHEMICAL & DYE CORP.**, 40 Rector St., New York, N. Y. Sou. Branch: 212 S. Tryon St., Charlotte, N. C.; Woodward Allen, Branch Mgr., H. W. Causey, Asst. Branch Mgr. Sou. Reprs.: Earl H. Walker, High Point, N. C.; Richard Hoyt, 1216 Edgewood Ave., Jacksonville, Fla.

**SONOCO PRODUCTS CO.**, Hartsville, S. C.

**SOUTHERN EQUIPMENT SALES CO. (N. C. Equipment Co.)**, Charlotte, N. C.

**SOUTHERN KNOTWOOD APRON CO.**, 118½ W. 4th St., Charlotte 2, N. C.

**SOUTHERN LOOM REED MFG. CO., INC.**, Gaffney, S. C.

**SOUTHERN RADIO CORP.**, W. Morehead St., Charlotte, N. C.

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**SOUTHERN SPINDLE & FLYER CO.**, Charlotte, N. C.

**SOUTHERN STANDARD MILL SUPPLY CO.**, 512-514 W. Fourth St., Charlotte, N. C. Benson Davis, Mgr.

**STALEY MFG. CO.**, A. E. Decatur, Ill. Sou. Offices, 2000 Rhodes-Haverty Bldg., Atlanta, Ga.; Wm. H. Randolph, Jr., Southeastern Mgr.; Charlotte N. C.; L. A. Dillon, Asst. Southeastern Mgr. Sou. Reprs.: George A. Dean, H. A. Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, Greenville, S. C.; Walter P. Hope, Atlanta, Ga.; W. N. Dulaney, 12 Montevallo Lane, Birmingham, Ala.

**STANLEY WORKS, THE**, New Britain, Conn. Sales Reprs.: G. H. Little, Harrison Bldg., Room 414, 4 S. 15th St., Philadelphia, Pa. Tel. Rittenhouse 9977; G. R. Douglas, 707 Columbia Mutual Towers, Memphis 3, Tenn., Tel. 8-7117; M. A. Hawkins, 3813 General Taylor St., New Orleans 15, La., Tel. Magnolia 5353; H. C. Jones, care The Stanley Sales Co., 410 Candler Bldg., Atlanta, Ga., Tel. Lamar 4651; G. J. McLernon, 208 Hubbard St., San Antonio 2 Tex., Tel. Travis 3653; Charles J. Turpie, Jr., 1412 Scott Ave., Charlotte, N. C., Tel. 3-7015; J. A. Dickson, P. O. Box 390, 122 Sales Ave., Phone 9-2812, Chattanooga, Tenn.; T. P. West, Jr., 7 Mallard St., Greenville, S. C., Tel. 3515-M.

**STEEL HEDDLE MFG. CO.**, Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C.; C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service. Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C.; J. J. Kaufmann, Jr., V-Pres. and Mgr. of Southern Divisions; Davis L. Datson and Sam Zimmerman, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C.; J. J. Kaufmann, Jr., Mgr.

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**TRICO FUSE MFG. CO.**, 2948 N. Fifth St., Milwaukee, Wis. Sou. Reprs.: North Carolina and South Carolina: T. H. McKenzie, 2316 S. Blvd., P. O. Box 395, Charlotte, N. C.; Georgia: Southeast Engineering Co., P. O. Box 491, Jacksonville 1, Fla.; Alabama: Southeast Engineering Co., P. O. Box 491, Jacksonville 1, Fla.; Virginia: P. M. Simpson, 717 Byrd Park Court, Richmond 20, Va.; Tennessee: J. Ed Sharpe, care Dixie Sales Co., P. O. Box 1829, Knoxville, Tenn.; Texas: S. Golob & Co., 1805 McDuffie St., Houston 8, Tex., and R. F. Hamilton & Associates, 2615 Cedar Spring, Dallas, Tex.; Louisiana: Trico Fuse Mfg. Co., Milwaukee, Wis. Distributors in the key cities of the South.

**U. S. BOBBIN & SHUTTLE CO.**, Lawrence, Mass. Sou. Plants, Greenville S. C.; Johnson City, Tenn. Sou. Reprs.: M. Ousley, P. O. Box 816, Greenville, S. C.; D. C. Ragan, High Point, N. C.; A. D. Roper, Johnson City, Tenn.

**U. S. RING TRAVELER CO.**, 159 Aborn St., Providence, R. I. Sou. Reprs.: William W. Vaughan and Wm. H. Rose, P. O. Box 792, Greenville, S. C.; Oliver B. Land, P. O. Box 158, Athens, Ga.; Torrence L. Maynard, P. O. Box 456, Belmont, N. C.; Harold R. Fisher, P. O. Box 83, Concord, N. C.

**UNIVERSAL WINDING CO.**, Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C.; Agts.: I. E. Wynne and R. M. Mauldin; 903 Whitehead Bldg., Atlanta, Ga., Agt. J. W. Stribling.

**VALENTINE & CO., J. W.**, 612 S. Main St., Winston-Salem, N. C.; Box 278 Salem Station, Winston-Salem, N. C.

**VEEDER-ROOT, INC.**, Hartford, Conn. Sou. Office, Room 231, W. Washington St., Greenville, S. C.; H. V. Barker, Sou. Dist. Mgr.

**VICTOR RING TRAVELER CO.**, Providence, R. I., with Sou. Office and Sales Room at 358-364 W. Main Ave., P. O. Box 842, Gastonia, N. C. Phone 247. Also W. L. Hudson, Box 1313, Columbia, Ga.

**WAK INDUSTRIES**, Charlotte, N. C.

**WALLERSTEIN CO., INC.**, 180 Madison Ave., New York 16, N. Y.

**WATSON & DESMOND**, 216½ W. Fourth St., Charlotte, N. C. Clifton E. Watson and S. P. V. Desmond, P. O. Box 1964, Charlotte, N. C. Sou. Reprs.: Walter P. Daboll, 703 Jefferson Bldg., Greensboro, N. C.; John W. Littlefield, 810 Woodside Bldg., Greenville, S. C.; R. V. McPhail, Gastonia, N. C.

**WATSON-WILLIAMS MFG. CO.**, Millbury, Mass. Sou. Reprs.: W. F. Daboll, 703 Jefferson Bldg., Greensboro, N. C.; John W. Littlefield, 810 Woodside Bldg., Greenville, S. C.

**WESTINGHOUSE ELECTRIC CORP. (LAMP DIVISION)**, Chamblee, Ga. R. A. Corvey, Dist. Mgr.; Walter R. McKinney, Branch Mgr., 2148 Highland St., Charlotte, N. C. Sales Reprs.: J. W. Johnston, 613 Mills St., Raleigh, N. C.; J. H. Vickery, 4332 Devereaux St., Columbia, S. C.

**WEST POINT FOUNDRY & MACHINE CO.**, West Point, Ga.

**WHEELER REFLECTOR CO., INC.**, 275 Congress St., Boston 10, Mass. Sou. Reprs.: Ernest Hall, 901-A Sul Ross St., Houston, Tex.; Marshall Whitman, Bona Allen Bldg., Atlanta, Ga.

**WHITE & CO.**, 1440-44 S. Tryon St., Charlotte 3, N. C. G. A. White.

**WHITEHEAD MACHINERY CO., TROY**, P. O. Box 1245, Charlotte, N. C. Phone 3-9631.

**WHITIN MACHINE WORKS**, Whitinsville, Mass. Sou. Office, Whitin Bldg., Charlotte, N. C.; W. H. Porcher and R. I. Dalton, Mgrs.; 1317 Healey Bldg., Atlanta, Ga. Sou. Reprs.: M. J. Bentley and B. B. Peacock.

**WHITINSVILLE SPINNING RING CO.**, Whitinsville, Mass. Sou. Repr.: William E. Shirley, Box 84, Ware Shoals, S. C.

**WILKIN & MATTHEWS**, 1504 E. Worthington Ave., Charlotte 3, N. C. Hugh Wilkin and John Matthews.

**WOLF, JACQUES & CO.**, Passaic, N. J. Sou. Reprs.: C. R. Bruning, 302 N. Ridgeway Drive, Greensboro, N. C.; G. W. Searrell, R. No. 13, Knoxville, Tenn.



# CLASSIFIED ADVERTISING

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Charlotte, N. C.  
Phone 3-8841

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N. Y. Office: 6708 Empire State Bldg.

### FOR SALE

13 Whitin Drawing Frames, 4 deliveries each.

4 Whitin Drawing Frames, 5 deliveries each.

Part of this equipment has new steel rolls and spiral gears. Available for immediate delivery. Some of the machinery may be seen in operation.

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SMITHERMAN COTTON MILLS  
Troy, N. C. Phone 38

### B. M. SIMPSON

120 Church Street Belton, S. C.  
Machine Fitter—Erector.

Complete textile plants dismantled, moved and erected anywhere in the United States. No jobs too large. Inquiries solicited.

### PAUL B. EATON

Patent Attorney

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753 Munsey Bldg., Washington, D. C.

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Young man 34 years old, married. Textile training and ICS graduate, 16 years' textile experience. Actual mill experience. Clerical, Standards, Time Study, Director of Standards, Assistant Superintendent and Superintendent. Print goods, Semi-Fancies and Denims. Presently employed.

Write "T.S.M." care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

Wanted—Position as cloth room overseer, 18 years experience on most all grades of cloth. Good manager of help. Best of references. Write "B.B.C." care of Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

Wanted—Position as master mechanic—25 years experience. At present employed but wish to make change. Can furnish best references. Can go anywhere. Write "Y. M. M." care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

### POSITION WANTED SUPERINTENDENT

Capable and energetic Superintendent, textile graduate, with wide experience including rayons and blends, wants to make new connection with progressive organization. Good manager of help, well experienced in cost and production control, as well as styling and production of new goods.

Write "X-A," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.



### LOOM SPECIALISTS

Largest Warehouse Stock In The South  
WE BUY, SELL OR TRADE USED TEXTILE MACHINERY AND SUPPLIES

LEON KIMMEL MACHINERY COMPANY

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1316

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We make and repair both big and little belts, quickly, economically and exactly.

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GREENVILLE, S. C.

Manufacturers of Leather Belting and Strapping

Telephone 2218



TEXTILE MILL  
AND DYE HOUSE  
—FIBRE BROOMS—  
Made especially for the textile industry.

PERFEX—Brooklyn 8, N. Y.  
Southern Rep. J. P. Batson  
Box 841, Greenville, S. C.

JOB WANTED as Overseer of Weaving; 25 years' experience in slashing and all kinds of plain weaving; 10 years on Leno and Osma. Married, sober. Now employed, but would like to make change for better job. Will come for interview if desired. Write "C-69," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

EXPERIENCED WEAVE ROOM OVERSEER AVAILABLE; now employed but would like to make change; prefer Alabama or Georgia, but will go anywhere. Have had 12 years' experience as overseer—can handle weaving and slashing. Experienced on all types of Draper looms from E-Model to KD-Model, on plain and fancy work. Age 41, married; two years college education. Can give best of recommendations. Sober and reliable. Would like to hear from someone who is looking for a man to hustle his job. Write "S-Z," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—Position as Overseer of Carding or Spinning, or both. 25 years' experience as Overseer on coarse and fine yarns. I don't run a job on excuses—I get quality and quantity. Good manager of help. References. Write "J," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

OVERSEER CLOTH ROOM is seeking position with Southern mill. 24 years' experience in cloth room; 18 years as overseer, on combed broadcloth and print cloth. Best of references. Reply to "EST-3," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—Position as Superintendent or Manager. Experienced on combed carded cotton yarn and spun rayon. The last 13 years as superintendent, eight years over yarn mills and the past four over weave. 45 years of age; Protestant religion; sober; high school graduate; I. C. S. textile graduate. As many as 2,000 employees under my supervision at one time. Have run both union and non-union mills. Satisfactory references. Can run your mill. Write "TM-06," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—Position as Overseer Weaving. Experienced as overseer on fancy work, both rayon and cotton, on Draper and C & K looms. Now employed but would like to make change. Sober and reliable. A-1 references; can come for interview. Write "F-28," care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

WANTED—Position as Assistant Superintendent or Overseer Weaving. Now employed but seeking better opportunity. 10 years' experience on fancy cottons and rayon. Married; best of references; Textile School graduate. Write "M-P," care Textile Bulletin, P. O. Box 1225, Charlotte, N. C.

## CLASSIFIED ADVERTISING

Advertisement with border is \$3.00 per inch for each insertion. Without a border, the rate is 4 cents per word, with a minimum charge of \$1.00 for each insertion.

TEXTILE BULLETIN  
Charlotte 1, N. C.

### POSITION WANTED

as manager or superintendent. Experience on carded and combed yarns. Osnaburg and quality sheeting. Superintendent of mills for several years. Employment record and references to interested parties.

Write "NN-86," care Textile Bulletin,  
P. O. Box 1225, Charlotte 1, N. C.

• If you want a new job, if you are seeking someone to fill a position, the classified advertising department of Textile Bulletin is ready to help. The classified section is read by both employees and employers.



• Firms having textile mill equipment for sale also find Textile Bulletin classified advertisements valuable in establishing business contacts.

When in Charlotte  
use our service



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SERVICE, INC.

411 North Tryon Street  
Charlotte, N. C.  
Phone 5-3969

## NEWSPAPER PRINTING

The Charlotte News (former printers of The Southern Textile News) invites inquiries about printing newspaper-type publications, tabloid or standard page size, for industrial plants, trade associations, employees, etc. Address: General Manager, Charlotte News, Charlotte, N. C.

## FOR SALE TEXTILE MACHINERY & SUPPLIES

6—Lowell L. D. Spinning Frames, 2 3/4" Ga., 272 spindles.  
3—No. 102 Foster Winders, 120 and 100 spindles.  
12—No. 50 Universal Winders, cones.  
5—No. 90 Universal Winders, Bunch Builders, Disc tension.  
40—40" H & B Cotton Cards, 10" & 12" colliers.  
50—40" Platt Cards, 10" colliers.

5—40" Pettee Roller Top, High Speed Rayon Cards.  
72—Draper E Automatic Sheeting Looms, 61" Reed space.  
15M—9 x 4 1/2 Whitin Roving Bobbins.  
5M—10 x 5 Woonsocket Roving Bobbins.  
5M—7 x 3 1/2 Woonsocket Roving Bobbins.  
Warp Bobbins and Quills, various sizes.  
1M—8 x 4 Whitin Flyers and Pressers.  
400—8 x 4 Woonsocket Flyers and Pressers.  
1M—10 x 5 Saco-Lowell Flyers and Pressers.

## WILSON LEWIS MACHINERY CORP.

Post Office Box 4100  
Charlotte 1, N. C.

Phone 4-2403

Warehouse: Wilkinson Blvd.  
Behind Barbeque Lodge

## FOR SALE

75—Veeder-Root Pick Counters, 1st and 2nd shift, complete.  
60—Holcombe Feelers Complete.  
120—Beam Heads, 20", for Friction Let-Off.

Make us an offer

GOLD-TEX FABRICS CORP.  
Rock Hill, S. C.

Wanted—Job as overseer spinning or carding, or both, in fine yarn mill. Experienced. Can furnish good references. Write "O.S.O." care Textile Bulletin, P. O. Box 1225, Charlotte 1, N. C.

## WANTED

Assistant superintendent, Textile graduate with weaving experience. Mill located in small North Georgia town. Good opportunity for right man.

Write "K-14," care Textile Bulletin,  
P. O. Box 1225, Charlotte 1, N. C.

## SUPERINTENDENT AVAILABLE

With one organization 28 years, working on combed and carded yarns in capacity of overseer of carding and spinning, and later as superintendent of spinning mill and mercerizing plant. Thoroughly experienced on mercerizing, bleaching and finishing. Graduate N. C. State in textile engineering. Change in mill management responsible for my seeking new connection. References.

Write "S.M.M.," care Textile Bulletin,  
P. O. Box 1225, Charlotte 1, N. C.

## FOR SALE

4—10x5 Woonsocket Slubbers, Cassa-Blanca Long Draft, 104 Spindles each.  
80—Frames, 3 1/4 and 3 1/2 Gauge, Long Draft Spinning.  
Call for full description.

All subject to prior sale.

J. S. CHRISTOPHER  
Spartanburg, S. C. Phone 3712-W

## MEN WANTED—POSITIONS OPEN:

General superintendent, also industrial engineer for group of rayon and silk weaving and throwing mills; production manager for rayon and cotton goods manufacturing plant; working overseer cotton carding, spinning and twisting; technical engineer for sales work; time study men; overseers dyeing and overseer finishing, synthetic fabric woven goods; Southern salesmen for machinery, chemicals, supplies, etc.; mechanical engineers and master mechanics; second hand for carding, also card grinder for cotton combed yarn mill; fixers for Crompton & Knowles and Draper rayon looms for South America, \$100 a week, days, \$115 week nights; overseers and second hands for cotton carding; time study engineers; textile engineer for sales work.

CHARLES P. RAYMOND SERVICE, Inc., 294 Washington St., Boston 8, Mass.  
Over Fifty Years in business

Telephones Liberty 2-6547 and Liberty 2-6548

## Economical Packaging!

• Consider the light weight, attractive designs and sales appeal that make OLD DOMINION set-up hosiery boxes a favorite of manufacturers. Write for booklet describing these economical packages—Dept. #38.



## John Hetherington & Sons, Inc.

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North Marietta Street Extension, Gastonia, N. C.

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MANCHESTER, ENGLAND

NASMITH COMBERS

### DRONSFIELD BROS., Ltd.

OLDHAM, ENGLAND

CARD GRINDING & ROLLER COVERING MACHINERY

### *We Stock*

COMBER NEEDLES—ATLAS BRAND EMERY FILLETING—  
ROLLER VARNISH—TRAVERSE AND DRUM GRINDERS—  
CARD CHAINS—HANK INDICATORS—CLEARER CLOTH  
—SPRINGS—SPROCKETS—TEXTILE MACHINERY REPAIR  
PARTS

## DURABLE!

## DESCRIBES THESE TWO VOGEL PRODUCTS

Being durable, they are economical. And, the name Vogel is your assurance of efficient operation.

### VOGEL NUMBER 10 SEAT-ACTION CLOSET



Vogel Number 10  
Seat-Action Closet

For schools, factories, institutions, comfort stations, public and semi-public places. Will withstand hard continuous use—free from complicated mechanism. A thorough, powerful flush is obtained with about 4 gallons of water.

### VOGEL NUMBER 14 SOUTHERN OUTFIT

A durable, economical closet for Mills, Factories and all types of industrial installation. A real example of VOGEL QUALITY that will give years of economical, trouble-free service.

(The Number 14 is not Frost-Proof)



When installing the Number 14 Closet, trap must be set directly under bowl.

## VOGEL PRODUCTS

Joseph A. Vogel Company • Wilmington 99 • Delaware



# Before Closing Down

—TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED—

## PERSONAL NEWS

Lonnie Candler, with Monarch Mills at Lockhart, S. C., since 1939, has been promoted from card room second hand to assistant overseer of carding.

A. E. Jury, who before his retirement was manager of the Winnsboro (S. C.) Mills of United States Rubber Co., has been named divisional assistant for textiles in the Economic Co-operation Administration in the United Kingdom. He has already sailed for London.

E. L. Holt, for several years superintendent of Atlantic Cotton Mills at Macon, Ga., is now superintendent of Forsyth (Ga.) Cotton Mills. . . . S. A. McCosh is now superintendent for Atlantic Cotton Mills.

W. W. Beall, formerly superintendent of Superba Mills, Inc., at Hawkinsville, Ga., is now superintendent of Riverview Mills, Inc., Geneva, Ala. He replaces W. G. Armstrong at Riverview.

Albert Bowman, formerly associated with Linwood Cotton Mills at LaFayette, Ga., has joined the operating executive staff of Central Mills at York, S. C.

William D. Benson, who recently joined Industrial Rayon Corp. as head of the company's sales activities, has been elected a vice-president of the firm. Prior to joining Industrial Rayon Corp., Mr. Benson was general sales manager of the rayon division of American Viscose Corp. . . . L. Louis Malm has been named chief engineer of Industrial Rayon Corp. Mr. Malm joined the company's headquarters engineering staff in 1944, and was named plants and process engineer in 1945.

W. S. Huss has been appointed sales manager of the Southern Division of Acme Steel Co. with headquarters in Atlanta, Ga. Assisting Mr. Huss will be J. C. Brill, New Orleans district manager, and C. A. Carrell and W. G. Polley, special representatives. Mr. Huss succeeds F. H. Webb, who retired from the company on his 30th anniversary.

Ralph P. Hanes, president and treasurer of Hanes Dye & Finishing Co., Winston-Salem, N. C., has been re-elected president of the Winston-Salem Civic Music Association which operates the city's cultural musical program.

W. J. Aldridge, secretary and treasurer of Mandeville Mills, Inc., and president and treasurer of Cunard Mills, Inc., Carrollton, Ga., has been re-elected as one of the vice-presidents of the West Georgia District, Boy Scouts of America.

Ben Cone, an executive of Cone Mills Corp., Greensboro, N. C., was elected to the executive committee of the Anti-De-

famation League, educational division of the Southern Division of the B'nai B'rith, at its recent annual meeting in Atlanta, Ga.

M. W. Sledge, a native of Alabama, has been appointed assistant manager of the belting sales department of Goodyear Tire & Rubber Co., replacing the late W. P. Hallstein. Prior to his recent appointment, Mr. Sledge was a mechanical goods field representative for the firm in Knoxville, Tenn., with headquarters in Atlanta, Ga.

John B. Crosby has joined Iselin-Jefferson Co., Inc., New York City textile selling agency, as assistant to Claiborne Carr, Jr., head of the firm's rayon division.

## MILL NEWS

GREER, S. C.—The name of Victory Textiles, Inc., has been changed officially to McCall Mfg. Co. This is a change in name only, and does not involve any changes of officers or otherwise. Joshua L. Bailly & Co., Inc., of New York City, continues as selling agent.

ANDERSON, S. C.—Officials of Orr Mills have announced plans to sell the approximately 325 houses of the mill village. Em-

ployees living in the houses will have first priority, and a financing plan has been arranged with the Federal Housing Administration. The mill management will paint the houses prior to selling them, the choice of color being left to individual buyers.

RAMSEUR, N. C.—It is reported that Guerin Mills, Inc., will establish a 4,800-spindle worsted spinning plant in Ramseur. Guerin Mills is capitalized at \$2,734,600 and operates 20,260 worsted spindles, 6,000 twister spindles and 120 looms at Woonsocket, R. I. The firm's president, treasurer and buyer is J. H. Lacouture of Woonsocket. Construction of the new plant is expected to start in May.

KOLLOCKS, S. C.—Bids are to be received April 5 for construction of a finishing plant here for J. P. Stevens Co., Inc. J. E. Sirrine Co. of Greenville, S. C., is the engineer for the project.

MOULTRIE, GA.—Recent improvements accomplished at Moultrie Cotton Mills include installation of an overhead Parks-Cramer cleaning system for the spinning room; overhauling of all looms from 20-inch to 24-inch beam heads; overhauling of all slashing with Westinghouse drives and



**ART EXHIBIT SYMBOLIZES HUMAN RELATIONS AT WORK**—Two geographically remote human relations programs have resulted in an unusual art exhibit at the 291 Broadway office of the East River Savings Bank, New York City. Ten original oil paintings depicting the story of employee relations at Avondale Mills of Sylacauga, Ala., are on view as the first of a series of exhibits featuring representative industries. Above, Donald Comer (left), chairman of the board, Avondale Mills and George A. Smyth (right), assistant vice-president of the East River Savings Bank, discuss the paintings.

Mr. Smyth became acquainted with the Avondale employee program some time ago. As he cashed monthly profit sharing checks for the firm's sales personnel in Manhattan, he learned about Avondale's "partnership with people" which makes all of the 7,000 employees partners in the enterprise. Artist Douglass Crockwell created the realistic paintings, which illustrate the Avondale philosophy in practice, from actual life among the cotton mill employees. Weavers, spinners and executives alike served as models. Family life and especially children are featured in several of the original oils.

## BEFORE CLOSING DOWN

Brown moisture controls. All homes in the mill village have been furnished with modern bathrooms.

**REMERTON, GA.**—A modernization program has been underway at Strickland Cotton Mills for some time includes a \$1,000,000, two-story addition to the plant, 100 by 290 feet, with the following new machinery: one new Saco-Lowell picker; 34 new Saco-Lowell cards; two lap winders; five new slubbers, model J-2, ten by five; 28 new deliveries of drawing with controlled draft; one 180-spindle Abbott winder; 175 model X2 Draper looms. The cloth, opening and picking rooms have been revamped with all modern machinery. The entire plant has been air cooled and 15 new duplex houses have been constructed in the village for operatives.

**HINESVILLE, GA.**—Pilgrim Rug Co., formerly of Pawtucket, R. I., has changed its name to Pilgrim Corp., with its new and permanent address at Hinesville. The firm produces venetian blind cord and ladder tape, as well as other braided cord, cotton braided rugs and miscellaneous braids.

**LAGRANGE, GA.**—Callaway Mills Co. is reported to be planning an expansion of its worsted operations to include a line of worsted fabrics within two years. The firm now offers only worsted yarns.

**WHITNEL, N. C.**—The contract for an addition to Spun Fibers, Inc., has been awarded to Elliott Building Co. of Hickory, N. C. Architect-engineer for the project is Biberstein & Bowles, Inc., of Charlotte, N. C. Spun Fibers is a subsidiary of American Yarn & Processing Co.

## OBITUARIES

**Merton M. Rudisill**, 64, of Lincolnton, N. C., president and treasurer of Maiden (N. C.) Spinning Mills, Inc., died March 17 at a hospital in New York City. Survivors include his wife, three daughters, one son, two sisters and three brothers. Carl A. Rudisill, a brother, is president of Carlton Yarn Mills at Cherryville, N. C.

**G. Edward Buxton**, 68, of Providence, R. I., prominent for many years in the textile industry, died March 15. He was chairman of the board of B. B. & R. Knight, Inc., and held directorships in U S Bobbin & Shuttle Co. and Fruit of the Loom, Inc. From 1932 until 1940 he was president of five Maine textile plants: Androscoggin Mills, Bates Mfg. Co., Edward Mfg. Co., Hill Mfg. Co. and York Mfg. Co. He was a former president of the National Association of Cotton Manufacturers and vice-president of the Cotton-Textile Institute. Surviving are his wife and a son.

**Thomas B. Spencer**, 67, of Rock Hill, S. C., who was associated with Precision Gear & Machine Co. of Charlotte, N. C., died March 15. A graduate of Clemson College, he was for a number of years a mill executive in Humboldt, Tenn., Greenville, S. C., Statesville and Raleigh, N. C. Surviving are his wife, two sons and four brothers.

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| Curtis & Marble Machine Co.                         |             | 106  |                                       |  |      |
| —D—                                                 |             |      |                                       |  |      |
| Daniels, Inc., C. R.                                |             | 65   |                                       |  |      |
| Dayton Rubber Co., The                              |             | 74   |                                       |  |      |
| Dickson & Co., W. K.                                |             | 110  |                                       |  |      |
| Dixon Lubricating Saddle Co.                        |             | 90   |                                       |  |      |
| Doige Co., C. B., The                               |             | 76   |                                       |  |      |
| Draper Corp.                                        |             | 3    |                                       |  |      |
| Dronsfield Bros.                                    |             | 77   |                                       |  |      |
| Du Pont de Nemours & Co., E. I.                     |             |      |                                       |  |      |
| Dyestuffs Division                                  |             | 41   |                                       |  |      |
| —E—                                                 |             |      |                                       |  |      |
| Eaton, Paul B.                                      |             | 130  |                                       |  |      |
| Engineering Sales Co.                               |             | 62   |                                       |  |      |
| —F—                                                 |             |      |                                       |  |      |
| Ferguson Gear Co.                                   |             | 119  |                                       |  |      |
| —G—                                                 |             |      |                                       |  |      |
| Gastonia Mill Supply Co.                            |             | 120  |                                       |  |      |
| Gastonia Textile Sheet Metal Works, Inc.            |             | 18   |                                       |  |      |
| Gossett Machine Works                               |             | 23   |                                       |  |      |
| Greensboro Loom Reed Co.                            |             | 117  |                                       |  |      |
| Greenville Belting Co.                              |             | 130  |                                       |  |      |
| —H—                                                 |             |      |                                       |  |      |
| H & B American Machine Co.                          | 16 and 17   |      |                                       |  |      |
| Henley Paper Co.                                    |             | 101  |                                       |  |      |
| Hetherington & Sons, Inc., John                     |             | 132  |                                       |  |      |
| Houghton Wool Co., The                              |             | 77   |                                       |  |      |
| Howard Bros. Mfg. Co.                               |             | 20   |                                       |  |      |
| —I—                                                 |             |      |                                       |  |      |
| Ideal Machine Co.                                   |             | 53   |                                       |  |      |
| Industrial Electronics Corp.                        |             | 69   |                                       |  |      |
| Iselin-Jefferson Co., Inc.                          |             | 125  |                                       |  |      |
| —J—                                                 |             |      |                                       |  |      |
| Jacobs Mfg. Co., Inc., E. H.                        | Front Cover |      |                                       |  |      |
| Jenkins Metal Shops, Inc.                           |             | 103  |                                       |  |      |
| —K—                                                 |             |      |                                       |  |      |
| Keever Starch Co.                                   |             | 95   |                                       |  |      |
| Kimmel Machinery Co., Leon                          |             | 130  |                                       |  |      |
| Klutz Machine & Foundry Co.                         |             | 109  |                                       |  |      |
| —M—                                                 |             |      |                                       |  |      |
| Maguire & Co., John P.                              |             | 35   |                                       |  |      |
| Marquette Metal Products Co., The                   |             | 13   |                                       |  |      |
| McChasie, Inc., William                             |             | 113  |                                       |  |      |
| McKee Belting Co.                                   |             | 118  |                                       |  |      |
| Meadows Mfg. Co.                                    |             | 37   |                                       |  |      |
| Meinhard, Greff & Co.                               |             | 110  |                                       |  |      |
| Merrrow Machine Co., The                            |             | 120  |                                       |  |      |
| Mitcham & Co.                                       |             | 78   |                                       |  |      |
| Monarch Elevator & Machine Co.                      |             | 84   |                                       |  |      |
| Moreland Chemical Co., Inc.                         |             | 91   |                                       |  |      |
| —N—                                                 |             |      |                                       |  |      |
| National Aniline Div., Allied Chem. & Dye Corp.     |             | 11   |                                       |  |      |
| National Ring Traveler Co.                          |             | 115  |                                       |  |      |
| Neisler Mills Co., Inc.                             |             | 124  |                                       |  |      |
| N. Y. & N. J. Lubricant Co.                         |             | 83   |                                       |  |      |
| Norlander-Young Machine Co.                         |             | 123  |                                       |  |      |
| North American Electric Lamp Co.                    |             | 108  |                                       |  |      |
| North, Inc., Frank G.                               |             | 85   |                                       |  |      |
| Numo Machine & Engineering Co.                      |             | 27   |                                       |  |      |
| —O—                                                 |             |      |                                       |  |      |
| Odom Machine Mfg. Corp.                             |             | 69   |                                       |  |      |
| Old Dominion Box Co.                                |             | 132  |                                       |  |      |
| —P—                                                 |             |      |                                       |  |      |
| Pease & Co., J. N.                                  |             | 101  |                                       |  |      |
| Penick & Ford, Ltd., Inc.                           |             | 118  |                                       |  |      |
| Philadelphia Quartz Co.                             |             | 73   |                                       |  |      |
| Piedmont Processing Co.                             |             | 118  |                                       |  |      |
| Pilot Life Insurance Co.                            |             | 91   |                                       |  |      |
| Pioneer Heddle & Reed Co., Inc.                     |             | 89   |                                       |  |      |
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| Precision Gear & Machine Co., Inc.                  |             | 66   |                                       |  |      |
| —R—                                                 |             |      |                                       |  |      |
| Raybestos-Manhattan, Inc.                           |             |      |                                       |  |      |
| Manhattan Rubber Div.                               |             | 111  |                                       |  |      |
| North Charleston Plant                              |             | 121  |                                       |  |      |
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| Ross & Witmer, Inc.                                 |             | 83   |                                       |  |      |
| Roy & Son Co., B. S.                                |             | 125  |                                       |  |      |
| Royce Chemical Co.                                  |             | 135  |                                       |  |      |
| —S—                                                 |             |      |                                       |  |      |
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| Salisbury Iron Works, Inc.                          |             | 87   |                                       |  |      |
| Seydel-Woolley & Co.                                |             | 83   |                                       |  |      |
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| Southern Standard Mill Supply Co.                   |             | 130  |                                       |  |      |
| Steel Heddle Mfg. Co. and Southern Shuttles Div.    |             | 30   |                                       |  |      |
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| Truitt Mfg. Co.                                     |             | 80   |                                       |  |      |
| —U—                                                 |             |      |                                       |  |      |
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| Universal Winding Co. (Atwood Division)             |             | 50   |                                       |  |      |
| Uster Corp.                                         |             | 55   |                                       |  |      |
| —V—                                                 |             |      |                                       |  |      |
| Valentine & Co., J. W.                              |             | 125  |                                       |  |      |
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| —W—                                                 |             |      |                                       |  |      |
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| Wilkin & Matthews                                   |             | 88   |                                       |  |      |
| Wolf & Co., Jacques                                 |             | 26   |                                       |  |      |

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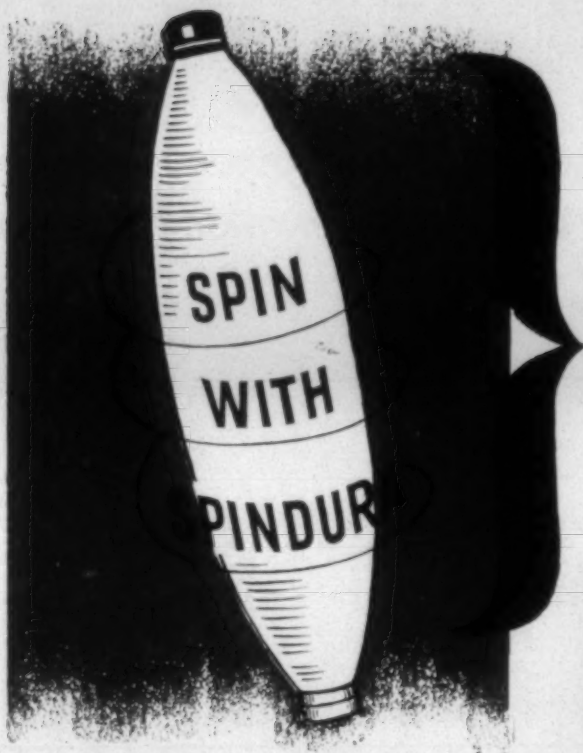
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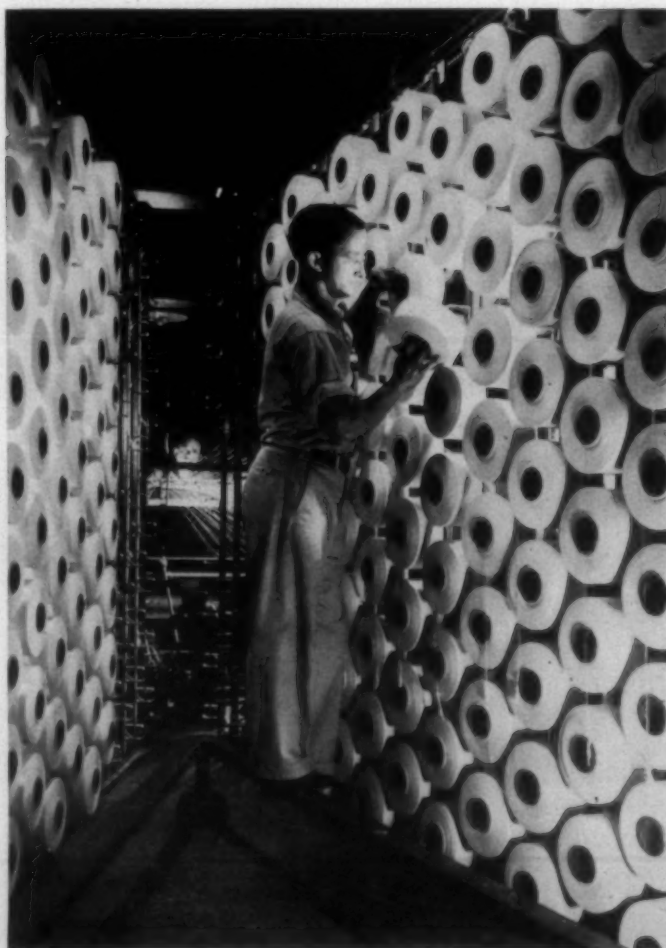
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